

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

March 2012

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-Mar-12	148.0	25	36	11	40	5,905	1.03	1.9	2.0	48	39	14	6.77	430	93
2-Mar-12	154.7	28	34	12	36	5,600	1.34	2.1	1.9	42	39	15	6.86	430	150
3-Mar-12	143.6	19	39	11	33	4,667	0.56	1.2	1.8	38	39	13	6.76	230	230
4-Mar-12	144.2	22	37	12	31	4,528	0.85	1.6	1.8	38	39	14	6.77	430	230
5-Mar-12	150.8	19	44	14	29	4,434	0.84	1.5	1.7	37	39	14	6.81	930	430
6-Mar-12	151.3	25	38	14	31	4,645	0.88	1.6	1.6	40	39	14	6.74	150	150
7-Mar-12	156.3	19	39	15	32	4,939	0.59	1.2	1.6	39	39	14	6.82	430	150
8-Mar-12	148.8	15	38	12	32	4,687	0.72	1.4	1.5	41	39	14	6.82	930	930
9-Mar-12	146.5	16	33	10	31	4,483	0.29	0.8	1.5	40	39	14	6.82	930	930
10-Mar-12	226.4	35	52	25	25	5,683	0.50	1.3	1.4	34	39	14	6.87	2,300	430
11-Mar-12	272.5	42	40	30	15	4,197	0.33	1.1	1.4	22	39	12	6.79	9,300	9,300
12-Mar-12	395.6	44	38	19	9	3,549	0.26	1.1	1.4	16	38	9	6.82	(230)	(93)
13-Mar-12	259.4	33	32	14	13	3,268	0.45	1.1	1.4	19	37	9	6.76	380	380
14-Mar-12	242.9	38	35	14	15	3,546	0.53	1.4	1.4	23	37	10	6.76	1,500	430
15-Mar-12	192.2	32	37	16	18	3,421	0.83	1.6	1.4	26	37	11	6.69	930	930
16-Mar-12	180.9	31	39	15	19	3,473	1.30	2.1	1.5	27	36	12	6.77	750	210
17-Mar-12	169.4	29	38	12	20	3,354	1.82	2.4	1.5	27	36	12	6.84	230	230
18-Mar-12	163.1	23	37	16	22	3,539	2.03	2.5	1.6	29	36	13	6.97	750	430
19-Mar-12	211.1	21	50	24	20	4,180	1.84	2.7	1.6	28	35	14	6.81	93	93
20-Mar-12	257.4	21	34	14	12	2,986	1.01	1.7	1.6	19	35	14	6.61	930	930
21-Mar-12	190.8	26	34	15	21	3,969	1.61	2.3	1.6	30	35	13	6.79	230	230
22-Mar-12	185.2	29	38	16	25	4,611	1.98	2.7	1.7	35	35	13	6.85	230	230
23-Mar-12	166.8	32	48	15	24	4,037	2.04	2.7	1.7	33	34	13	6.77	430	430
24-Mar-12	271.7	40	47	17	15	3,994	1.43	2.2	1.7	23	34	13	6.42	(>110,000)	(>110,000)
25-Mar-12	168.5	27	36	15	18	3,050	1.36	1.9	1.7	26	33	12	6.83	230	93
26-Mar-12	160.2	35	40	20	21	3,316	1.90	2.6	1.8	30	33	12	6.82	93	93
27-Mar-12	330.3	32	33	15	13	4,294	1.23	2.1	1.8	22	32	12	6.83	2300	2300
28-Mar-12	193.2	15	31	10	13	2,492	1.27	1.7	1.8	20	32	11	6.81	230	230
29-Mar-12	290.6	58	45	20	16	4,533	1.65	2.4	1.8	23	31	12	6.91	93	21
30-Mar-12	241.8	14	28	10	10	2,466	1.18	1.4	1.8	18	30	9	6.84	430	150
31-Mar-12	175.2	15	34	10	17	2,908	1.89	2.1	1.8	24	29	12	6.98	430	430
Max:	395.6														
Min:	143.6														
Average:	202.9	28	65	15	22	4,024	1.15	1.8		30		12	6.80		
Geo.Mean:														479	303

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.