

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

March 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-Mar-11	144.1	12	34	16	37	5,288	1.19	2.0	2.2	45	39	13	6.96	430	150
2-Mar-11	144.9	9	26	11	37	5,361	1.17	2.1	2.2	44	39	13	6.88	93	93
3-Mar-11	141.4	11	38	7	37	5,175	1.06	2.0	2.1	44	39	13	6.83	4,300	2,300
4-Mar-11	143.6	9	35	4	38	5,414	1.07	1.7	2.1	47	40	13	6.95	43	43
5-Mar-11	139.4	7	41	5	37	5,214	1.25	2.0	2.0	47	40	13	7.10	430	230
6-Mar-11	136.6	8	nr	nr	33	4,521	0.96	1.6	2.0	43	40	13	7.03	75	75
7-Mar-11	145.3	8	32	9	32	4,635	0.61	1.0	2.0	40	40	13	6.78	430	430
8-Mar-11	143.6	12	30	10	32	4,581	0.70	1.2	2.0	40	41	13	6.71	9,300	9,300
9-Mar-11	145.2	13	27	7	30	4,283	0.84	1.4	1.9	39	41	13	7.11	23	23
10-Mar-11	139.4	15	35	9	28	3,959	0.91	1.5	1.9	38	41	13	6.82	150	150
11-Mar-11	145.4	9	41	6	28	4,086	1.07	1.7	1.9	37	41	13	6.76	150	150
12-Mar-11	132.8	11	30	7	26	3,453	1.13	1.6	1.9	34	41	12	6.98	150	150
13-Mar-11	127.6	17	48	8	27	3,458	1.14	1.8	1.9	37	41	13	6.88	93	43
14-Mar-11	136.7	16	48	8	30	4,128	1.20	1.7	1.8	36	41	13	6.83	43	23
15-Mar-11	221.8	46	53	20	26	5,833	1.17	2.5	1.9	37	41	14	6.81	28	28
16-Mar-11	243.7	36	34	14	23	5,654	0.45	1.3	1.8	29	40	11	6.82	93	93
17-Mar-11	204.1	33	22	13	21	4,184	0.12	0.6	1.8	28	40	12	6.83	230	230
18-Mar-11	164.6	30	29	14	29	4,790	0.81	1.5	1.7	37	39	11	6.98	750	750
19-Mar-11	191.5	24	45	11	25	4,788	0.86	1.5	1.7	32	39	12	7.08	75	75
20-Mar-11	376.3	59	34	17	12	4,478	0.33	1.2	1.7	18	38	10	6.98	43	23
21-Mar-11	370.8	43	29	12	12	4,375	0.37	1.0	1.7	17	38	10	7.02	230	230
22-Mar-11	321.0	25	20	10	16	4,976	0.54	1.0	1.6	21	37	8	6.96	75	75
23-Mar-11	222.6	18	16	6	18	3,962	0.56	1.0	1.6	25	37	9	7.00	150	150
24-Mar-11	217.7	26	24	8	19	4,223	0.89	1.4	1.6	27	36	11	6.86	230	230
25-Mar-11	215.2	30	22	11	19	4,110	0.89	1.4	1.6	26	36	10	6.87	430	430
26-Mar-11	207.7	22	25	12	20	4,092	1.03	1.5	1.6	27	36	10	7.03	150	150
27-Mar-11	210.0	22	nr	nr	20	4,200	0.95	1.5	1.6	27	35	11	7.00	93	93
28-Mar-11	232.9	25	27	11	19	4,472	0.83	1.5	1.5	25	34	11	6.87	230	93
29-Mar-11	252.3	32	28	11	18	4,592	0.85	1.5	1.5	25	34	10	6.89	150	93
30-Mar-11	277.6	36	31	13	17	4,636	0.84	1.6	1.5	19	33	10	6.85	23	9
31-Mar-11	285.4	35	33	8	14	3,881	0.89	1.6	1.5	22	32	12	7.01	1,500	150
Max:	376														
Min:	128														
Average:	199	23	32	10	25	4,542	0.86	1.5		33		12	6.92		
Geo.Mean:														171	128

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.