

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

April 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-Apr-11	339.9	28	27	12	12	4,215	0.81	1.4	1.5	19	31	9	7.00	430	430
2-Apr-11	379.4	62	33	16	11	4,173	0.75	1.6	1.5	17	31	9	6.95	230	230
3-Apr-11	588.6	96	44	25	5	2,908	0.57	1.5	1.5	12	29	8	7.06	(23,000)	(23,000)
4-Apr-11	510.9	45	29	16	7	3,571	0.70	1.4	1.4	14	28	8	7.29	(43,000)	(43,000)
5-Apr-11	431.2	34	26	13	9	3,751	0.85	1.6	1.4	15	27	8	7.31	(430)	(93)
6-Apr-11	426.5	53	34	15	8	3,531	0.84	1.5	1.5	15	27	9	7.16	(93)	(93)
7-Apr-11	423.7	37	30	17	10	4,156	1.05	1.4	1.5	16	26	9	7.10	(93,000)	(21,000)
8-Apr-11	473.5	90	34	17	7	3,172	0.70	1.5	1.5	13	25	9	7.27	(23,000)	(23,000)
9-Apr-11	646.1	42	27	14	7	4,245	0.64	1.1	1.4	13	24	9	7.25	(460,000)	(460,000)
10-Apr-11	457.2	39	30	15	8	3,584	0.83	1.4	1.4	14	23	8	7.29	(93,000)	(43,000)
11-Apr-11	394.7	31	26	11	9	3,505	1.00	1.5	1.4	16	23	9	7.33	(240,000)	(93,000)
12-Apr-11	359.7	24	21	7	10	3,493	0.99	1.6	1.4	17	22	10	7.15	(43,000)	(43,000)
13-Apr-11	319.5	17	24	7	14	4,601	1.24	1.6	1.4	19	21	10	7.14	4,300	4,300
14-Apr-11	296.3	17	35	9	13	3,970	1.40	1.8	1.4	20	21	10	7.17	4,300	4,300
15-Apr-11	280.8	21	26	7	14	3,987	1.40	1.8	1.4	21	21	10	7.04	4,300	4,300
16-Apr-11	368.3	35	32	10	11	3,904	0.84	1.3	1.4	15	20	ns	ns	ns	ns
17-Apr-11	284.5	18	25	8	12	3,414	0.91	1.2	1.4	17	19	10	7.13	21,000	21,000
18-Apr-11	278.5	9	27	8	14	3,788	1.14	1.4	1.4	20	19	10	7.22	460,000	15,000
19-Apr-11	267.5	10	24	6	15	3,986	1.05	1.4	1.4	21	19	11	7.07	4,300	4,300
20-Apr-11	251.3	9	27	6	16	4,046	1.10	1.5	1.5	22	19	11	7.02	2,100	2,100
21-Apr-11	244.1	8	39	6	16	3,881	1.05	1.3	1.5	20	19	11	6.89	43,000	43,000
22-Apr-11	245.3	11	39	6	15	3,557	0.96	1.2	1.5	22	19	10	7.09	15,000	75
23-Apr-11	232.1	7	38	5	16	3,644	1.02	1.3	1.5	22	19	11	7.00	15,000	15,000
24-Apr-11	230.6	10	34	6	16	3,736	1.20	1.5	1.5	22	19	11	7.06	4,300	4,300
25-Apr-11	231.0	12	45	5	18	4,066	1.47	1.7	1.5	23	19	11	7.02	43,000	15,000
26-Apr-11	231.3	10	37	8	19	4,348	1.56	1.9	1.5	25	19	12	7.02	9,300	9,300
27-Apr-11	239.4	16	41	8	19	4,573	1.49	1.9	1.5	25	19	12	7.18	43	23
28-Apr-11	249.5	16	47	9	18	4,591	1.44	1.9	1.5	24	19	12	7.00	4	4
29-Apr-11	248.6	18	35	7	18	4,400	1.42	1.9	1.5	23	19	12	7.08	nr	nr
30-Apr-11	470.9	80	46	14	7	3,390	0.62	1.4	1.5	13	18	13	6.98	(240,000)	(240,000)
Max:	646														
Min:	231														
Average:	347	30	33	10	12	3,873	1.03	1.5		18		10	7.11		
Geo.Mean:														3,521	1,910

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.