

City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
March 2009

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-09	141.7	16	24	10	23	3,302	3.90	4.9	4.8	31	31	11	6.96	1,700	790
2-Mar-09	148.0	18	31	12	24	3,493	3.92	4.8	4.8	31	31	12	6.77	130	14
3-Mar-09	152.2	13	23	9	22	3,364	3.73	4.8	4.8	30	31	13	6.95	490	40
4-Mar-09	158.3	20	28	10	22	3,451	3.50	4.7	4.8	31	31	13	6.89	700	490
5-Mar-09	158.9	12	25	9	23	3,639	3.51	4.5	4.8	31	31	13	6.91	79	79
6-Mar-09	154.9	17	21	10	22	3,392	3.29	4.3	4.8	31	31	13	6.79	790	280
7-Mar-09	148.6	19	25	10	22	3,329	3.67	4.7	4.7	32	31	12	6.82	280	79
8-Mar-09	145.3	13	30	11	24	3,415	4.00	4.8	4.7	32	31	13	6.81	220	170
9-Mar-09	150.6	10	32	10	22	3,328	3.57	4.7	4.7	32	31	13	6.81	49	8
10-Mar-09	152.2	16	29	10	23	3,470	3.73	4.5	4.7	31	31	12	6.88	22	14
11-Mar-09	149.1	21	27	10	23	3,399	3.87	4.9	4.7	32	31	12	6.94	4	<2
12-Mar-09	157.2	23	35	11	23	3,568	3.92	5.0	4.8	34	32	12	6.82	33	8
13-Mar-09	161.4	19	32	13	23	3,648	3.89	4.6	4.9	36	32	12	6.90	8	2
14-Mar-09	206.1	22	36	16	22	4,493	3.41	4.5	4.9	33	32	12	6.91	79	33
15-Mar-09	257.2	55	25	15	15	3,729	2.05	3.1	4.8	24	32	10	6.85	330	79
16-Mar-09	335.2	74	nr	nr	11	3,721	1.50	2.0	4.7	21	31	9	6.90	23	8
17-Mar-09	322.4	30	27	16	11	3,579	1.25	2.4	4.6	21	31	9	7.19	330	130
18-Mar-09	196.3	12	22	10	14	2,670	2.47	3.2	4.5	22	31	8	6.96	34	17
19-Mar-09	176.4	17	33	10	16	2,769	3.18	4.2	4.5	28	30	11	6.75	46	17
20-Mar-09	230.4	33	nr	nr	17	3,963	3.10	4.0	4.5	25	30	12	6.85	33	13
21-Mar-09	292.3	55	nr	nr	11	3,186	1.88	2.9	4.4	20	30	10	6.93	330	330
22-Mar-09	421.0	89	47	24	6	2,623	1.35	2.5	4.3	14	29	8	6.98	(330)	(49)
23-Mar-09	639.0	48	35	17	4	2,850	1.01	1.8	4.2	13	29	6	7.26	(22,000)	(3,300)
24-Mar-09	639.4	50	31	16	4	2,711	1.00	2.1	4.1	18	28	6	7.22	(22,000)	(14,000)
25-Mar-09	340.5	16	13	8	10	3,248	1.40	1.9	4.0	13	27	7	7.26	(35,000)	(35,000)
26-Mar-09	273.8	30	27	10	13	3,505	1.81	2.5	4.0	19	27	ns	ns	ns	ns
27-Mar-09	242.7	24	16	6	13	3,228	2.08	2.9	3.9	23	27	9	6.99	14	4
28-Mar-09	204.3	21	23	12	15	3,085	2.59	3.5	3.8	23	26	9	6.92	70	8
29-Mar-09	217.3	22	20	12	16	3,367	2.62	3.4	3.8	25	26	10	6.98	49	23
30-Mar-09	237.1	18	22	12	15	3,532	2.41	3.2	3.7	23	26	9	6.93	11	7
31-Mar-09	221.8	17	18	9	16	3,438	2.38	3.2	3.7	23	26	9	7.01	490	330
Max:	639														
Min:	142														
Average:	240	27	27	12	17	3,371	2.77	3.7		26		10.5	6.94	87	31
Geo.Mean:															

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.