

City of Winnipeg
Water and Waste Department
South 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	48.2	11	13	7	31	1,500	4.26	4.9	4.9	35	33	12	6.59	280	39
2-Mar-09	45.7	15	21	10	30	1,349	3.90	4.7	4.9	33	34	14	6.48	3,300	280
3-Mar-09	45.7	9	16	6	32	1,454	4.05	4.7	4.9	36	34	14	6.67	790	220
4-Mar-09	48.9	11	19	7	33	1,593	4.85	5.6	5.0	38	34	14	6.56	2,200	1,100
5-Mar-09	48.5	9	19	6	31	1,498	4.67	5.7	5.0	37	34	14	6.62	4,600	4,600
6-Mar-09	47.3	7	14	7	32	1,517	3.38	4.0	5.0	37	34	13	6.49	11,000	2,800
7-Mar-09	50.1	11	23	8	30	1,497	3.14	4.0	4.9	36	34	13	6.52	4,600	4,600
8-Mar-09	51.0	9	17	8	30	1,530	3.60	4.3	4.8	35	34	12	6.58	4,900	1,700
9-Mar-09	59.0	15	27	10	30	1,782	4.34	5.3	4.8	36	34	13	6.69	2	2
10-Mar-09	46.7	16	15	8	30	1,382	3.05	3.9	4.8	36	34	13	6.60	7,900	1,100
11-Mar-09	46.7	13	17	8	32	1,479	3.11	4.2	4.8	37	34	13	6.53	4,900	4,900
12-Mar-09	46.7	10	15	7	40	1,863	4.50	5.2	4.8	39	34	13	6.68	4,900	4,900
13-Mar-09	47.1	8	15	7	31	1,461	3.28	3.7	4.8	39	35	13	6.52	4,900	790
14-Mar-09	51.6	10	21	11	32	1,645	3.51	4.1	4.8	40	35	13	6.69	13,000	2,200
15-Mar-09	62.5	10	29	12	26	1,613	2.58	3.4	4.7	34	35	12	6.55	35,000	7,900
16-Mar-09	72.6	39	nr	nr	22	1,568	2.21	3.2	4.7	31	35	12	6.53	35,000	1,700
17-Mar-09	67.5	15	24	8	22	1,464	1.93	2.7	4.6	28	35	11	6.74	4,900	1,100
18-Mar-09	52.2	12	28	11	25	1,314	2.16	2.8	4.5	29	35	10	6.67	13,000	2,200
19-Mar-09	48.4	9	18	7	28	1,359	3.60	4.4	4.5	31	35	nr	6.81	4,900	1,700
20-Mar-09	53.4	9	nr	nr	29	1,532	3.74	4.1	4.5	34	35	13	6.45	540	350
21-Mar-09	66.2	24	nr	nr	24	1,614	2.66	3.8	4.5	29	34	12	6.63	17,000	3,500
22-Mar-09	102.1	344	155	14	14	1,470	0.95	10.0	4.6	38	35	11	6.69	(24,000)	(7,900)
23-Mar-09	162.5	272	164	69	9	1,519	0.63	8.1	4.7	32	34	9	6.88	(54,000)	(4,900)
24-Mar-09	135.4	ns	ns	ns	ns	ns	ns	ns	4.7	ns	34	9	7.00	(94,000)	(9,400)
25-Mar-09	72.3	ns	ns	ns	ns	ns	ns	ns	4.7	ns	35	10	6.80	1,400	700
26-Mar-09	65.4	12	13	6	19	1,250	2.32	3.1	4.7	24	34	9	6.89	1,700	790
27-Mar-09	61.4	11	12	5	21	1,301	2.25	3.0	4.6	27	34	11	6.67	490	47
28-Mar-09	61.4	8	15	5	22	1,356	2.46	3.2	4.5	29	34	10	6.75	2,300	1,300
29-Mar-09	62.5	11	11	6	22	1,368	2.86	3.5	4.4	27	33	11	6.68	170	170
30-Mar-09	61.9	12	20	5	22	1,362	2.90	3.7	4.4	29	33	11	6.68	(2,300)	(1,300)
31-Mar-09	64.7	22	14	5	21	1,379	2.66	3.5	4.4	26	33	12	6.67	790	490
Max:	162.5														
Min:	45.7														
Average:	63.1	33	29	10	27	1,483	3.09	4.4		33		12	6.66		
Geo.Mean:														2,501	820

- 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 98.6 ML/D per clause 26 of Licence 2716.
 - (6) Bracketed Coliform results not used in the Geometric Mean calculation.
 - (7) Raw wastewater flows in excess of 100 ML/D will by-pass the secondary process.