

**City of Winnipeg**  
**Water and Waste Department**  
**North End Water Pollution Control Centre Monitoring Data**  
**March 2008**

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-08	157.8	19	52	9	38	5,996	4.50	5.4	5.1	49	45	14	6.71	2,300	2,300
2-Mar-08	159.6	27	38	9	35	5,586	4.13	4.8	5.1	44	44	14	6.82	920	920
3-Mar-08	161.5	23	54	10	33	5,330	4.05	4.8	5.1	41	44	14	6.93	2,300	2,300
4-Mar-08	117.5	22	50	11	33	3,878	4.13	4.9	5.1	46	45	14	6.97	2,300	2,300
5-Mar-08	153.5	25	55	9	35	5,373	4.25	5.3	5.1	49	45	14	6.99	2,300	2,300
6-Mar-08	115.5	29	61	11	33	3,812	4.00	5.0	5.0	43	44	14	6.93	920	920
7-Mar-08	156.3	22	38	9	33	5,158	3.93	5.2	5.0	37	44	13	6.9	2,300	2,300
8-Mar-08	152.5	19	36	11	33	5,033	3.78	4.8	5.0	44	44	13	6.93	3,600	3,600
9-Mar-08	146.8	30	38	9	33	4,844	3.97	4.9	5.0	42	44	13	6.9	3,600	3,600
10-Mar-08	155.0	24	42	10	34	5,270	3.90	4.9	5.0	44	44	13	7.00	3,600	3,600
11-Mar-08	185.5	25	41	11	34	6,307	3.71	4.8	5.0	37	44	14	6.84	230	230
12-Mar-08	194.7	25	32	11	28	5,452	2.78	3.9	5.0	34	43	13	6.84	2,300	2,300
13-Mar-08	241.1	25	32	12	25	6,028	2.23	3.2	4.9	31	43	14	6.98	920	920
14-Mar-08	180.9	23	34	9	27	4,884	2.21	3.1	4.9	32	42	12	7.06	na	920
15-Mar-08	158.7	20	29	9	30	4,761	3.04	4.0	4.8	37	42	13	7.01	na	920
16-Mar-08	168.2	23	41	10	30	5,046	3.29	4.4	4.8	37	42	13	6.96	920	920
17-Mar-08	164.5	26	59	12	31	5,100	3.46	4.5	4.8	34	42	13	7.07	360	360
18-Mar-08	230.6	32	57	13	27	6,226	2.95	4.1	4.8	29	41	13	7.26	3,600	3,600
19-Mar-08	198.5	27	50	10	25	4,963	2.19	2.9	4.7	33	41	13	7.13	2,300	2,300
20-Mar-08	195.0	23	48	12	28	5,460	2.66	3.8	4.7	37	41	13	6.95	3,600	3,600
21-Mar-08	242.4	19	68	12	26	6,302	2.53	nr	4.6	nr	41	12	7.04	2,300	2,300
22-Mar-08	188.0	19	35	9	23	4,324	2.42	3.5	4.6	37	40	12	6.99	1,500	1,500
23-Mar-08	157.4	17	37	9	28	4,407	3.13	4.2	4.6	40	40	13	7.00	2,300	2,300
24-Mar-08	157.0	21	35	7	30	4,710	3.39	4.4	4.5	40	40	13	7.03	920	920
25-Mar-08	169.9	16	33	7	34	5,777	3.40	4.4	4.5	47	41	13	7.14	920	920
26-Mar-08	157.7	16	35	7	35	5,520	3.34	4.2	4.5	46	41	13	6.99	2,300	2,300
27-Mar-08	156.4	13	45	7	36	5,630	3.83	4.4	4.5	46	41	13	6.97	75,000	9,200
28-Mar-08	180.0	nr	40	17	35	6,300	2.05	2.9	4.4	42	41	14	6.99	360	360
29-Mar-08	236.5	62	59	35	30	7,095	2.28	3.9	4.4	43	40	13	7.19	43,000	43,000
30-Mar-08	<b>453.9</b>	74	48	19	12	5,447	1.29	1.4	4.2	15	39	13	7.15	(93000)	(93000)
31-Mar-08	234.4	17	45	10	19	4,454	1.84	2.4	4.1	27	38	13	7.14	3,600	3,600
<b>Max:</b>	454														
<b>Min:</b>	116														
<b>Average:</b>	<b>185</b>	<b>25</b>	<b>44</b>	<b>11</b>	<b>30</b>	<b>5,305</b>	<b>3.18</b>	<b>4.1</b>		<b>39</b>		<b>13</b>	<b>6.99</b>		
<b>Geo.Mean:</b>														<b>2,078</b>	<b>1,836</b>

**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.
- (8) Total Phosphorus and Total Nitrogen results are corrected based on the recovery of a quality control standard.