

**City of Winnipeg**  
**Water and Waste Department**  
**North End Water Pollution Control Centre Monitoring Data**  
**September 2007**

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-Sep-07	154.3	6	15	4	25	3,858	3.59	4.0	3.7	32	31	20.5	6.97	250	49
2-Sep-07	146.4	10	23	8	25	3,660	3.58	4.0	3.6	32	31	19.5	6.86	350	14
3-Sep-07	208.2	12	32	6	20	4,164	2.77	3.5	3.6	26	31	20.3	6.67	(130)	(79)
4-Sep-07	171.2	5	18	4	22	3,766	2.97	2.3	3.6	21	31	19.5	6.83	1,400	330
5-Sep-07	192.5	6	43	6	24	4,620	3.14	3.3	3.5	31	31	20.3	6.76	700	140
6-Sep-07	178.7	6	31	6	28	5,004	3.31	3.5	3.5	31	31	20.4	6.89	2,100	540
7-Sep-07	186.4	9	14	5	30	5,592	3.66	3.4	3.5	33	31	20.2	7.02	2,400	920
8-Sep-07	171.3	8	15	4	31	5,310	3.69	4.1	3.5	37	31	19.9	6.99	1,100	110
9-Sep-07	167.2	10	27	7	31	5,183	3.74	3.3	3.6	34	31	19.4	7.16	540	49
10-Sep-07	200.3	11	36	6	28	5,608	3.33	nr	3.6	29	32	19.6	6.88	350	110
11-Sep-07	174.5	9	35	6	25	4,363	2.85	3.0	3.6	30	31	18.7	6.84	(540)	(39)
12-Sep-07	179.4	8	19	5	32	5,741	3.60	3.9	3.6	36	32	19.4	7.06	920	70
13-Sep-07	183.6	16	39	7	44	8,078	4.59	4.2	3.6	45	32	20.0	7.19	1,400	540
14-Sep-07	167.2	13	28	6	42	7,022	4.24	3.6	3.6	38	33	19.6	6.94	920	70
15-Sep-07	157.5	10	28	5	35	5,513	4.24	3.8	3.7	35	33	19.3	7.02	1,600	540
16-Sep-07	155.1	12	30	6	29	4,498	3.96	3.6	3.7	32	33	19.8	6.86	920	21
17-Sep-07	175.6	12	34	5	29	5,092	3.81	2.8	3.6	28	33	19.8	6.84	920	350
18-Sep-07	178.4	12	29	6	29	5,174	3.20	3.2	3.6	35	33	20.3	6.83	350	21
19-Sep-07	166.4	12	15	5	32	5,325	3.82	nr	3.6	nr	33	19.6	7.01	260	140
20-Sep-07	222.0	17	57	9	27	5,994	3.11	3.1	3.6	31	32	19.7	6.73	(5,400)	(350)
21-Sep-07	171.7	8	21	6	25	4,293	2.39	2.2	3.5	29	33	19.1	7.06	2,400	540
22-Sep-07	154.7	8	22	5	nr	nr	nr	2.8	3.5	nr	33	18.8	7.04	33	5
23-Sep-07	166.2	19	40	12	23	3,823	3.77	2.2	3.5	23	32	19.7	6.72	1,400	140
24-Sep-07	<b>425.1</b>	17	22	9	9	3,826	1.43	1.5	3.4	14	32	17.8	6.95	79	79
25-Sep-07	242.1	8	<10	3	13	3,147	1.80	1.9	3.3	20	31	17.9	7.20	1,400	1,400
26-Sep-07	197.8	8	<10	3	25	4,945	3.23	3.3	3.3	29	31	18.7	6.93	1,700	64
27-Sep-07	192.5	13	16	4	26	5,005	4.00	4.0	3.3	33	31	19.3	6.96	1,700	1,700
28-Sep-07	172.5	6	21	4	27	4,658	4.27	4.1	3.3	36	31	19.1	6.80	540	22
29-Sep-07	160.4	7	20	4	26	4,170	4.39	3.7	3.3	31	31	19.5	7.00	350	240
30-Sep-07	157.7	10	19	5	29	4,573	4.17	4.6	3.3	36	31	19.4	7.10	330	330
<b>Max:</b>	425														
<b>Min:</b>	146														
<b>Average:</b>	<b>186</b>	<b>10</b>	<b>25</b>	<b>6</b>	<b>27</b>	<b>4,897</b>	<b>3.47</b>	<b>3.3</b>		<b>31</b>		<b>19.5</b>	<b>6.94</b>		
<b>Geo.Mean:</b>														<b>679</b>	<b>133</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) Days highlighted in gray, "NS" for the final effluent composite, secondary effluent composite sample analyzed.