

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
September, 2005**

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-05	242.2	5	25	6	11	2,660	2.10	2.2	3.4	19	29	18.5	6.79	93,000	23,000
2-Sep-05	186.8	7	40	6	15	2,800	2.98	3.1	3.5	26	29	18.5	6.74	4,300	4,300
3-Sep-05	172.2	8	31	7	17	2,930	3.27	3.4	3.5	25	30	19.5	7.04	2,300	2,300
4-Sep-05	158.5	ns	ns	ns	ns	nr	ns	ns	ns	ns	ns	20.0	6.75	15,000	15,000
5-Sep-05	323.2	ns	ns	ns	ns	nr	ns	ns	ns	ns	ns	20.0	6.77	93,000	43,000
6-Sep-05	199.3	ns	ns	ns	ns	nr	ns	ns	ns	ns	ns	20.0	6.58	9,300	4,300
7-Sep-05	197.9	10	33	9	23	4,550	3.68	4.0	3.5	30	30	20.0	6.61	210,000	210,000
8-Sep-05	189.3	9	25	10	25	4,730	3.85	3.9	3.6	nr	nr	20.0	6.81	93,000	93,000
9-Sep-05	180.1	11	26	10	29	5,220	4.16	4.5	3.6	nr	nr	20.0	6.78	93,000	93,000
10-Sep-05	198.8	11	38	11	35	6,960	4.58	4.6	3.7	43	30	21.0	6.89	430,000	430,000
11-Sep-05	191.5	7	32	9	28	5,360	3.70	3.7	3.7	nr	nr	21.0	7.11	93,000	75,000
12-Sep-05	194.1	10	28	9	27	5,240	3.78	4.0	3.7	nr	nr	20.0	6.67	43,000	43,000
13-Sep-05	154.4	7	27	9	26	4,010	3.82	4.1	3.7	36	30	20.0	6.55	43,000	43,000
14-Sep-05	146.3	7	31	9	27	3,950	3.96	4.4	3.7	33	30	19.5	6.68	43,000	43,000
15-Sep-05	152.6	9	27	7	26	3,970	3.97	4.6	3.8	31	30	20.0	6.71	43,000	15,000
16-Sep-05	140.9	33	54	19	21	2,960	3.52	3.5	3.7	26	30	19.5	6.67	7,500	4,300
17-Sep-05	295.0	11	43	7	11	3,250	1.57	1.7	3.7	16	30	16.5	6.78	93,000	43,000
18-Sep-05	152.2	5	24	6	19	2,890	2.89	2.9	3.6	25	29	18.0	7.07	4,300	2,300
19-Sep-05	186.3	5	22	6	20	3,730	3.16	3.3	3.6	26	29	19.0	6.71	15,000	15,000
20-Sep-05	184.3	6	27	7	21	3,870	3.18	3.5	3.6	29	29	19.5	6.66	15,000	15,000
21-Sep-05	177.9	7	25	9	24	4,270	3.58	3.6	3.6	31	29	19.5	6.78	15,000	15,000
22-Sep-05	172.2	6	29	10	27	4,650	4.00	4.0	3.6	33	29	19.5	6.66	7,500	2,300
23-Sep-05	186.5	6	37	7	26	4,850	3.88	4.0	3.6	30	29	19.0	6.68	23,000	4,300
24-Sep-05	252.5	6	39	7	15	3,790	2.59	2.5	3.5	19	29	18.0	6.77	23,000	9,300
25-Sep-05	180.2	5	26	6	21	3,780	3.54	3.5	3.5	27	29	18.0	6.78	2,300	2,300
26-Sep-05	184.3	5	28	7	22	4,060	3.72	4.0	3.5	30	29	18.0	6.68	2,300	2,300
27-Sep-05	176.5	7	30	7	24	4,240	3.86	4.0	3.6	32	28	19.0	6.67	9,300	9,300
28-Sep-05	166.0	8	27	8	27	4,480	4.20	4.4	3.6	35	29	18.5	6.88	7,500	7,500
29-Sep-05	168.0	8	30	8	27	4,540	4.11	4.3	3.7	36	29	18.5	6.67	9,300	2,100
30-Sep-05	176.2	8	35	8	28	4,930	4.11	4.5	3.7	35	29	19.0	6.75	1,500	1,500
Total:	5686														
Max:	323.2														
Min:	140.9														
Average:	189.5	8	31	8	23	4,170	3.55	3.7		29		19.3	6.76		
Geo.Mean:														20,000	13,000

Notes:

(1) * = 30 day rolling average

(2) effluent ammonia load based upon Raw Sewage flows and Final NH3-N concentrations

(3) nr - not recorded; na - not analyzed; ns - no sample

(4) Final Effluent flow data unavailable, data in **bold** text adjusted using secondary flow data

(5) July 1 to 18 - Secondary treatment process shut-down due to high river levels, process fully restored by July 22

(6)** During normal plant operation any flow greater than 400 ML/ day will by-pass the secondary process