

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
July, 2006**

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)*	(oC)	(units)	MPN/100 mL	
1-Jul-06	167.7	8	29	4	22	3,689	3.91	4.0	3.9	37	36	19.5	6.60	93000	9300
2-Jul-06	160.3	7	26	3	21	3,366	4.16	4.3	3.9	36	36	19.5	6.63	23000	23000
3-Jul-06	169.7	11	28	6	21	3,564	4.25	4.3	3.9	36	36	20.0	6.54	75000	75000
4-Jul-06	180.8	5	30	5	22	3,978	4.11	4.3	3.9	39	36	19.5	6.74	150000	150000
5-Jul-06	183.8	6	32	5	25	4,595	4.33	4.3	4.0	39	36	19.5	6.59	43000	43000
6-Jul-06	182.2	8	nr	nr	25	4,555	4.23	4.2	4.0	38	36	20.0	6.49	23000	23000
7-Jul-06	185.4	9	28	5	24	4,450	4.30	4.2	4.0	36	36	20.0	6.61	150000	93000
8-Jul-06	169.5	8	25	4	23	3,899	3.96	3.9	4.1	37	37	20.5	6.22	93000	43000
9-Jul-06	164.2	8	20	5	25	4,105	3.94	3.6	4.0	36	37	19.0	6.74	43,000	43,000
10-Jul-06	179.5	8	23	5	23	4,129	4.03	3.8	4.0	36	37	20.0	6.73	230,000	43,000
11-Jul-06	187.6	9	nr	nr	23	4,315	4.05	4.1	4.1	34	37	20.0	6.45	93,000	93,000
12-Jul-06	180.7	10	22	5	23	4,156	3.88	3.8	4.1	33	37	21.0	6.50	93,000	93,000
13-Jul-06	234.9	23	41	23	19	4,463	3.70	3.8	4.1	30	37	20.0	6.70	43,000	43,000
14-Jul-06	177.8	11	25	6	17	3,022	2.06	2.1	4.0	26	37	21.0	6.44	930,000	930,000
15-Jul-06	155.5	6	23	4	22	3,421	2.41	2.3	4.0	32	37	21.0	6.62	230,000	230,000
16-Jul-06	159.2	18	21	4	25	3,981	3.44	3.6	4.0	38	37	20.0	6.60	150,000	150,000
17-Jul-06	166.9	9	22	5	24	4,006	3.78	4.1	3.9	35	36	19.0	6.76	75,000	75,000
18-Jul-06	166.2	14	23	5	24	3,989	3.76	4.2	4.0	37	37	20.0	6.61	43,000	43,000
19-Jul-06	169.2	8	25	5	24	4,061	3.56	4.0	4.0	35	36	20.0	6.54	93,000	93,000
20-Jul-06	175.0	10	28	5	22	3,850	3.55	4.0	3.9	33	36	19.5	6.53	43,000	43,000
21-Jul-06	173.9	10	26	6	23	4,000	3.62	3.6	3.9	32	36	20.0	6.38	43,000	43,000
22-Jul-06	147.5	10	27	5	23	3,393	3.82	4.1	3.8	37	35	21.0	6.44	43,000	43,000
23-Jul-06	151.0	9	25	6	23	3,473	4.00	4.5	3.9	36	35	21.0	6.46	43,000	43,000
24-Jul-06	146.5	10	23	5	21	3,077	3.94	4.6	3.9	36	36	21.0	6.47	93,000	21,000
25-Jul-06	229.8	23	59	33	15	3,447	4.18	5.9	4.0	31	35	21.0	6.58	430,000	230,000
26-Jul-06	173.1	13	28	7	16	2,770	1.86	3.0	3.9	31	35	21.0	6.47	4,300,000	4,300,000
27-Jul-06	179.6	10	20	5	22	3,951	2.02	2.5	3.9	31	35	21.5	6.58	930,000	430,000
28-Jul-06	163.6	10	23	4	22	3,599	2.92	3.2	3.9	33	35	19.0	6.84	430,000	430,000
29-Jul-06	150.3	9	22	5	21	3,156	4.00	4.4	3.9	35	35	20.5	6.54	43,000	43,000
30-Jul-06	154.0	10	20	6	23	3,542	4.58	4.8	3.9	36	35	21.0	6.57	43,000	43,000
31-Jul-06	169.7	7	25	5	21	3,564	4.13	3.8	3.9	30	34	21.0	6.98	150,000	150,000
Total:	5355														
Max:	235														
Min:	147														
Average:	172.7	10	27	7	22	3,792	3.69	3.9		34		20.2	6.58		
Geo.Mean:														106,800	82,200

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 2684R.
- (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.