

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

September 2011

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-11	313.7	24	29	11	15	4,831	1.66	2.2	2.8	20	31	20	6.77	(110000)	(110000)
2-Sep-11	177.3	39	nr	nr	18	3,156	2.28	2.8	2.8	24	30	20	6.97	430	430
3-Sep-11	381.0	9	nr	nr	8	3,059	1.10	1.4	2.9	13	30	19	6.75	(9300)	(9300)
4-Sep-11	154.4	7	11	4	14	2,100	2.38	2.7	2.9	20	29	19	6.97	930	930
5-Sep-11	149.9	12	27	8	19	2,788	3.25	3.8	3.0	27	29	19	7.01	930	930
6-Sep-11	147.8	14	38	7	19	2,867	3.24	3.8	3.1	28	29	20	6.95	380	380
7-Sep-11	158.1	15	34	6	25	3,984	3.53	4.0	3.2	33	29	20	6.86	230	230
8-Sep-11	159.0	22	47	10	26	4,166	3.46	4.1	3.3	34	29	21	6.92	430	430
9-Sep-11	154.3	18	41	6	25	3,858	3.65	4.3	3.3	34	29	20	6.91	430	430
10-Sep-11	140.6	16	28	5	24	3,360	3.72	4.3	3.4	31	29	21	6.97	2,300	2,300
11-Sep-11	146.1	19	49	5	27	3,915	3.84	4.4	3.4	36	29	21	6.98	15,000	15,000
12-Sep-11	147.9	15	45	8	28	4,097	3.90	4.5	3.5	37	29	21	6.91	9,300	9,300
13-Sep-11	148.4	14	33	7	27	4,036	4.19	4.8	3.6	38	30	20	6.88	430	430
14-Sep-11	159.1	15	nr	nr	29	4,662	4.07	4.5	3.6	40	30	20	6.96	430	430
15-Sep-11	146.3	9	52	8	27	3,906	3.90	4.7	3.7	37	30	20	6.88	380	380
16-Sep-11	146.5	12	57	4	25	3,663	4.20	4.8	3.7	36	30	20	6.88	430	430
17-Sep-11	136.4	6	62	6	24	3,328	4.26	5.0	3.7	35	31	20	6.99	150	150
18-Sep-11	142.1	13	67	7	24	3,396	3.84	4.7	3.8	35	31	20	6.49	380	380
19-Sep-11	151.7	12	69	6	26	4,005	4.42	5.4	4.0	38	32	20	6.84	430	430
20-Sep-11	386.1	58	66	18	16	6,293	2.55	3.9	4.0	25	32	19	6.93	(230)	(230)
21-Sep-11	253.8	8	27	3	11	2,766	1.34	2.0	3.9	17	31	16	6.87	1,500	1,500
22-Sep-11	158.4	11	43	4	20	3,089	2.69	3.1	3.9	29	31	18	6.99	430	430
23-Sep-11	160.8	10	77	6	23	3,731	3.49	4.1	3.9	33	31	19	6.83	43	43
24-Sep-11	152.7	10	>76	5	23	3,466	3.87	4.5	4.0	33	31	19	6.94	75	75
25-Sep-11	140.7	9	71	4	22	3,039	3.63	4.5	4.0	35	31	20	7.04	93	93
26-Sep-11	157.5	12	>71	5	21	3,323	3.45	4.3	4.0	34	31	19	6.98	93	93
27-Sep-11	155.4	14	68	5	23	3,512	4.07	4.8	4.0	33	31	20	6.87	43	43
28-Sep-11	151.6	9	67	6	22	3,396	4.02	4.9	4.0	33	31	20	6.87	230	230
29-Sep-11	156.4	14	76	7	23	3,613	3.87	5.1	4.0	34	31	20	6.94	43	43
30-Sep-11	153.1	16	76	7	25	3,843	4.63	5.4	4.1	36	31	20	6.79	43	43
Max:	386														
Min:	136														
Average:	176	15	52	7	22	3,642	3.42	4.1		31		20	6.90		
Geo.Mean:														349	349

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 2684RRR.
- (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 Nitrogen results are calculated from TKN and nitrate values.