

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

**February 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-Feb-11	142.9	13	32	7	28	3,930	2.87	3.6	3.0	36	38	14	6.79	15	15
2-Feb-11	143.7	19	26	7	28	3,995	2.41	3.1	3.0	37	38	14	6.81	43	43
3-Feb-11	144.6	13	27	7	33	4,714	1.82	2.6	2.9	36	38	14	6.75	93	93
4-Feb-11	162.8	15	30	8	28	4,526	1.85	2.5	2.8	34	38	14	6.84	240	93
5-Feb-11	150.3	12	27	7	24	3,577	1.31	1.9	2.7	32	38	14	6.75	230	230
6-Feb-11	137.4	11	nr	nr	25	3,394	1.26	1.9	2.6	34	38	14	7.01	93	23
7-Feb-11	142.8	10	34	8	24	3,399	1.46	2.1	2.6	34	38	14	6.78	93	93
8-Feb-11	150.9	15	31	9	26	3,954	1.55	2.3	2.6	35	38	13	6.79	75	75
9-Feb-11	140.0	14	31	8	26	3,598	1.50	2.2	2.5	35	38	13	6.80	43	23
10-Feb-11	148.3	17	36	14	27	3,989	1.61	2.3	2.5	37	38	13	6.80	93	93
11-Feb-11	139.5	15	25	7	28	3,850	1.37	2.1	2.5	39	38	14	6.79	93	93
12-Feb-11	140.6	25	31	10	28	3,895	1.22	2.0	2.4	39	37	14	6.90	93	93
13-Feb-11	142.2	18	25	8	28	3,925	1.19	2.0	2.4	39	37	14	6.88	43	43
14-Feb-11	151.5	19	31	12	26	4,000	1.22	2.1	2.4	38	37	14	6.77	43	15
15-Feb-11	177.5	27	30	9	34	6,106	1.57	2.5	2.4	44	37	14	6.76	93	93
16-Feb-11	167.7	24	32	11	37	6,222	1.28	2.2	2.4	50	38	14	6.58	430	430
17-Feb-11	149.4	14	36	11	30	4,512	1.16	1.8	2.3	40	38	14	6.86	230	230
18-Feb-11	139.6	12	39	6	30	4,216	1.40	2.0	2.3	40	38	13	6.88	93	93
19-Feb-11	135.7	12	49	13	30	4,071	1.33	2.0	2.3	40	38	14	6.95	93	93
20-Feb-11	127.0	14	28	8	29	3,670	1.42	2.1	2.3	39	38	13	6.94	150	150
21-Feb-11	136.7	15	26	9	26	3,554	1.26	1.9	2.3	36	38	13	6.95	43	43
22-Feb-11	138.6	13	25	8	28	3,881	1.09	1.7	2.3	36	38	14	6.89	93	93
23-Feb-11	146.9	9	31	8	32	4,715	1.08	1.7	2.3	41	38	13	6.87	23	23
24-Feb-11	148.4	15	46	20	33	4,882	1.32	1.9	2.2	40	38	14	6.88	230	230
25-Feb-11	145.7	8	33	5	34	4,998	1.29	1.9	2.2	43	38	15	6.85	430	430
26-Feb-11	142.2	13	50	29	33	4,721	1.27	2.0	2.2	43	38	13	7.07	93	93
27-Feb-11	138.5	11	22	7	32	4,460	1.20	2.1	2.3	42	38	13	7.01	430	430
28-Feb-11	141.7	8	22	5	33	4,676	1.08	2.1	2.2	43	38	13	6.95	38	23
<b>Max:</b>	178														
<b>Min:</b>	127														
<b>Average:</b>	<b>145</b>	<b>15</b>	<b>32</b>	<b>10</b>	<b>29</b>	<b>4,265</b>	<b>1.44</b>	<b>2.2</b>		<b>39</b>		<b>14</b>	<b>6.85</b>		
<b>Geo.Mean:</b>														<b>95</b>	<b>81</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 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.