

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

**January 2012**

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-Jan-12	120.7	10	>79	7	24	2,836	1.49	1.9	3.5	35	38	15	6.79	2,300	930
2-Jan-12	139.0	10	nr	nr	25	3,532	1.37	1.9	3.4	37	38	14	6.72	930	430
3-Jan-12	148.5	10	66	9	27	4,024	1.28	1.8	3.3	38	38	15	6.86	230	230
4-Jan-12	144.4	10	66	12	28	4,014	1.16	1.6	3.2	39	38	15	6.82	35	35
5-Jan-12	147.1	10	74	11	28	4,046	1.17	1.5	3.1	39	38	15	6.81	750	750
6-Jan-12	154.1	7	72	9	23	3,576	1.14	1.4	3.0	35	38	16	6.71	230	93
7-Jan-12	138.8	9	>79	9	20	2,707	1.01	1.6	2.9	35	38	15	6.83	930	930
8-Jan-12	137.6	11	>74	12	25	3,384	1.18	1.5	2.8	37	38	15	6.75	230	230
9-Jan-12	152.2	10	>75	9	20	3,089	1.00	1.5	2.7	38	38	16	6.68	43	43
10-Jan-12	155.9	9	>77	10	20	3,071	0.70	1.4	2.6	36	38	16	6.94	930	930
11-Jan-12	141.3	9	>75	10	25	3,518	1.28	1.9	2.5	38	38	15	6.76	210	120
12-Jan-12	141.7	9	74	9	29	4,166	1.76	2.1	2.4	39	38	15	6.64	43	43
13-Jan-12	144.2	10	51	7	30	4,284	1.34	1.8	2.3	38	38	15	6.84	93	93
14-Jan-12	141.1	15	57	7	29	4,119	1.52	1.8	2.2	36	38	15	6.88	93	93
15-Jan-12	136.6	11	nr	nr	28	3,852	2.17	2.6	2.1	38	38	14	6.67	93	43
16-Jan-12	145.7	12	72	9	26	3,803	2.55	3.3	2.1	35	38	14	6.76	43	43
17-Jan-12	145.6	13	73	9	28	4,018	2.79	3.4	2.1	36	38	14	6.87	93	23
18-Jan-12	145.1	14	65	9	27	3,961	2.77	3.4	2.1	35	37	14	nr	230	93
19-Jan-12	145.4	9	43	10	27	3,984	3.08	3.7	2.1	36	37	13	nr	43	43
20-Jan-12	144.2	14	56	9	27	3,878	3.25	4.0	2.2	36	37	14	nr	43	15
21-Jan-12	143.0	15	59	7	28	3,960	3.44	4.2	2.2	35	37	13	nr	2,300	2,300
22-Jan-12	145.2	16	60	8	27	3,905	3.26	4.0	2.3	35	37	13	nr	38	9
23-Jan-12	145.7	16	52	8	25	3,685	3.25	4.2	2.4	34	37	14	nr	2,300	2,300
24-Jan-12	145.8	16	51	9	25	3,630	3.17	4.1	2.4	34	37	14	nr	15	4
25-Jan-12	138.9	17	59	12	27	3,710	3.16	3.9	2.5	41	37	15	nr	23	23
26-Jan-12	151.0	18	57	10	28	4,153	3.29	3.9	2.5	35	37	15	nr	230	230
27-Jan-12	145.9	15	45	9	27	3,895	2.98	3.5	2.6	35	37	14	nr	430	430
28-Jan-12	141.3	17	72	13	27	3,758	3.10	3.8	2.6	36	37	15	nr	930	930
29-Jan-12	138.3	18	65	14	27	3,777	3.16	3.8	2.7	37	37	14	nr	230	93
30-Jan-12	140.1	13	72	10	26	3,641	3.03	3.8	2.8	35	36	14	nr	430	430
31-Jan-12	148.4	11	54	10	26	3,902	3.16	4.0	2.8	37	37	14	6.91	930	430
<b>Max:</b>	156														
<b>Min:</b>	121														
<b>Average:</b>	<b>144</b>	<b>12</b>	<b>65</b>	<b>10</b>	<b>26</b>	<b>3,738</b>	<b>2.23</b>	<b>2.8</b>		<b>37</b>		<b>14</b>	<b>6.79</b>		
<b>Geo.Mean:</b>														<b>199</b>	<b>136</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.