

**WATER POLLUTION CONTROL PLANT -- AVAILABLE RESERVE CAPACITY -- AS OF JANUARY 1, 2020**

NOTE: The following calculations are based on MOE Procedure D-5-1 "Calculating and Reporting on Uncommitted Reserve Capacity at Sewage and Water Treatment Plants".

**Section 1**

Plant Design Capacity 17,500 m3/d

**Section 2**

Calculate Average per Capita and per Household Flow

Year	Actual Flow to Plant	Days in Year	No. of Hshlds	Population	Average Flows m3/d								
					Annual Flow	3 Yr Avg	5 Yr Avg	Per Hshld	3 Yr Avg	5 Yr Avg	Per Capita	3 Yr Avg	5 Yr Avg
1995	4,133,919	365	7,210	21,342	11,326			1.57			0.531		
1996	5,086,038	366	7,364	21,797	13,896			1.89			0.638		
1997	4,535,715	365	7,496	22,188	12,427	12,550		1.66	1.71		0.560	0.576	
1998	4,295,408	365	7,782	23,035	11,768	12,697		1.51	1.69		0.511	0.569	
1999	4,264,551	365	8,069	23,964	11,684	11,960	12,220	1.45	1.54	1.62	0.488	0.519	0.545
2000	4,482,889	366	8,388	24,828	12,248	11,900	12,405	1.46	1.47	1.59	0.493	0.497	0.538
2001	4,695,280	365	8,877	26,276	12,864	12,265	12,198	1.45	1.45	1.51	0.490	0.490	0.508
2002	4,532,625	365	9,066	26,835	12,418	12,510	12,196	1.37	1.43	1.45	0.463	0.482	0.489
2003	4,269,438	365	9,303	26,886	11,697	12,326	12,182	1.26	1.36	1.40	0.435	0.462	0.474
2004	4,442,177	366	9,542	27,576	12,137	12,084	12,273	1.27	1.30	1.36	0.440	0.446	0.464
2005	4,405,351	365	9,642	27,865	12,069	11,968	12,237	1.25	1.26	1.32	0.433	0.436	0.452
2006	4,735,282	365	9,682	27,981	12,973	12,393	12,259	1.34	1.29	1.30	0.464	0.446	0.447
2007	3,524,366	365	9,750	28,178	9,656	11,566	11,707	0.99	1.19	1.22	0.343	0.413	0.423
2008	4,389,300	366	9,761	28,209	11,993	11,541	11,766	1.23	1.19	1.22	0.425	0.410	0.421
2009	4,135,162	365	9,851	27,582	11,329	10,993	11,604	1.15	1.12	1.19	0.411	0.393	0.415
2010	4,348,716	365	10,109	28,305	11,914	11,745	11,573	1.18	1.19	1.18	0.421	0.419	0.413
2011	4,181,265	365	10,186	28,520	11,456	11,566	11,269	1.12	1.15	1.13	0.402	0.411	0.400
2012	3,877,666	366	10,303	27,818	10,595	11,322	11,457	1.03	1.11	1.14	0.381	0.401	0.408
2013	4,242,403	365	10,475	28,492	11,623	11,224	11,383	1.11	1.09	1.12	0.408	0.397	0.404
2014	4,173,011	365	10,596	28,821	11,433	11,217	11,404	1.08	1.07	1.10	0.397	0.395	0.402
2015	3,738,123	365	10,678	29,045	10,241	11,099	11,070	0.96	1.05	1.06	0.353	0.386	0.388
2016	3,824,580	366	10,696	28,900	10,450	10,708	10,868	0.98	1.01	1.03	0.362	0.370	0.380
2017	4,554,316	365	10,887	29,500	12,478	11,056	11,245	1.15	1.03	1.05	0.423	0.379	0.388
2018	4,252,664	365	11,065	29,876	11,651	11,526	11,251	1.05	1.06	1.04	0.390	0.392	0.385
2019	4,095,264	365	11,153	30,113	11,220	11,783	11,208	1.01	1.07	1.03	0.373	0.395	0.380

## WATER POLLUTION CONTROL PLANT -- AVAILABLE RESERVE CAPACITY -- AS OF JANUARY 1, 2020

NOTE: The following calculations are based on MOE Procedure D-5-1 "Calculating and Reporting on Uncommitted Reserve Capacity at Sewage and Water Treatment Plants".

### Section 3

Average Day Flow for 2018 11,220 m3/d

### Section 4

Hydraulic Reserve Capacity = Design Capacity - Actual Recorded Avg Day Flow

Rated Capacity	17,500 m3/d
Act Record Flow	<u>11,220 m3/d</u>
Hydraulic Res Cap	<b>6,280 m3/d</b>

### Section 5

Residential Units with Committed Capacity

<u>Plan</u>	<u>Committed Units</u>	<u>Unoccupied Units</u>		
Infilling	11	(15 SF Res @ 0.75 SDU/Unit)		
15 Brenda Blvd	9	(14 Apartment Units @ 0.66 SDU/Unit)		
Westview-Block 3	28	( 42 condo apts @ .66SDU/Unit)		
15-19 Centre St	16	(24 condo apts @ .66SDU/Unit)		
30/32 Townline	1	(1 Apartment Units @ 0.66 SDU/Unit)		
31 Townline	6	(9 Townhouses @ 0.66 SDU/Unit)		
Cachet Block 92	0	(0 common element townhouse Units @ 0.66 SDU/Unit)		
310 Broadway	29	(44 townhouse units at 0.66 SDU/Unit)		
Chartwell Seniors Ph 2 (Riddell Road)	61	(122 Seniors Units @ 0.50 SDU)		
Humber College (full build-out)	0	+	174	m <sup>3</sup> /day
Water Supply Filter Backwash		+	51	m <sup>3</sup> /day
<b>Total Committed Capacity</b>	<b>161</b>	+	225	m <sup>3</sup> /day

## WATER POLLUTION CONTROL PLANT -- AVAILABLE RESERVE CAPACITY -- AS OF JANUARY 1, 2020

NOTE: The following calculations are based on MOE Procedure D-5-1 "Calculating and Reporting on Uncommitted Reserve Capacity at Sewage and Water Treatment Plants".

### Section 6

Committed Plant Capacity = No. of Committed Units \* 5 Yr Avg Flow per hshld per day

No. of Committed Units	161	
5 Yr Avg Flow / hshld / d	<u>1.03</u>	
Residential Committed Capacity	165	m <sup>3</sup> /day
Humber / Filters	<u>225</u>	m <sup>3</sup> /day
	390	m <sup>3</sup> /day

### Section 7

Uncommitted Reserve Capacity = Hydraulic Reserve Capacity - Committed Reserve Capacity

Hydraulic Reserve Capacity	6,280	m3/d
Committed Plant Capacity	390	m3/d
Uncommitted Reserve Capacity	<b>5,890</b>	m3/d

### Section 8

No. of Add'l Units that could be serviced = Uncommitted Reserve Capacity / 5 Yr Avg Flow / hshld /d

Uncommitted Reserve Capacity	5,890	m3/d
5 Yr Avg Flow / hshld / day	<u>1.03</u>	
No. of Add'l Units	<b>5,728</b>	
Census Density from Treasury	<u>2.7</u>	ppu
Additional Population	<b>15,466</b>	