

Appendix 3: Water Treatment Plant Reserve Capacities for 2024

Water Treatment Plant (WTP)	Permit to Take Water ⁽¹⁾ m³/d	Rated Treatment Capacity m³/d	Theoretical Ave Day Capacity m³/d	90% of Ave Day Capacity ⁽²⁾ m³/d	5-Year Ave Day Flow m³/d	Peaking Factor	Total Capacity Used	Reserve Treatment Capacity 90% m³/d	Design Flow Rate ⁽³⁾ 246 Lcd	Reserve Serviceable Population Equivalents	10-Year Forecast Population Res & Emp	Surplus Population 10-Year Projection
DeCew Falls	227,000	227,300	152,040	136,836	53,346	1.495	35%	83,491	246	339,393	30,223	309,170
Grimsby	44,000	44,000	26,699	24,029	14,966	1.648	56%	9,063	246	36,841	17,037	19,804
Niagara Falls	145,500	145,584	97,511	87,760	41,742	1.493	43%	46,018	246	187,063	28,700	158,363
Port Colborne	45,500	36,000	21,858	19,672	7,307	1.647	33%	12,365	246	50,265	2,032	48,233
Rosehill	78,000	50,026	32,089	28,879	12,202	1.559	38%	16,678	246	67,796	7,151	60,645
Welland	110,000	65,000	43,218	38,896	24,493	1.504	57%	14,403	246	58,548	18,388	40,160

Note 1: Original MOE approved quantity of raw water permitted (Permit To Take Water).

Note 2: Region's 2021 W&WW MSP requires planning process for expansion when plant capacity exceeds 80%, and expansion should be completed when capacity exceeds 90%.

Note 3: Region's 2021 W&WW MSP new design criteria calls for 240 Lcd residential consumption and 270 Led employment consumption. This is equivalent to 246 Lcd for both, using the 79% and 21% residential and employment share, respectively.