

Appendix 4: WWTP Reserve Capacity for 2021

Wastewater Treatment Plant	MECP Rated Capacity	90% of Plant Capacity ⁽¹⁾	5-Year Average Daily Flow	Total Capacity Used	Reserve Treatment 90%Capacity	Design Flow Rate ⁽²⁾ 365 Lpcd	Reserve Serviceable Population	10-Year Forecast Population Res & Emp	Surplus Population 10-Year Projection
	m ³ /d				m ³ /d		Equivalents		
Anger Avenue (Fort Erie)	24,500	22,050	14,304	58%	7,746	365	21,221	4,277	16,944
Baker Road (Grimsby)	31,280	28,152	19,363	62%	8,789	365	24,080	16,791	7,289
Crystal Beach (Fort Erie)	9,100	8,190	5,802	64%	2,388	365	6,544	1,443	5,101
Niagara Falls ⁽³⁾	68,300	61,470	39,594	58%	21,876	365	59,933	19,980	39,953
NOTL	8,000	7,200	5,046	63%	2,154	365	5,902	2,644	3,258
Port Dalhousie (St. Catharines)	61,350	55,215	34,501	56%	20,714	365	56,751	15,005	41,746
Port Weller (St. Catharines)	56,180	50,562	35,022	62%	15,540	365	42,576	10,052	32,524
Queenston (NOTL) ⁽⁴⁾	500	450	185	37%	265	365	727	99	628
Seaway (Port Colborne)	19,600	17,640	11,927	61%	5,713	365	15,653	1,622	14,031
Stevensville/Douglastown	2,289	2,060	1,636	71%	424	365	1,163	795	368
Welland	54,550	49,095	35,019	64%	14,076	365	38,566	12,912	25,654

Note 1: Region's W&WW MSP (GM BluePlan, 2017) requires planning process for expansion when plant capacity exceeds 80%, and expansion should be completed when capacity exceeds 90%.

Note 2: Design Flow Rate incorporated 90 L/c/d of extraneous flow allowance

Note 3: The Niagara Falls WWTP assessment includes the sewage flows from the St. David's area of Niagara-on-the-Lake.

Note 4: The Queenston WWTP in Niagara-on-the-Lake has a unique capacity commitment of 226 m³/d for the following properties: Niagara Parks Commission (75 m³/d), Niagara Falls Bridge Commission (63 m³/d), Shalamar Campground (38 m³/d) and Ontario Power Generation (50 m³/d). Due to these commitments and limited UAB, limited residential growth is expected within the next 10 years within the tributary area.