Appendix 4: WWTP Reserve Capacity for 2023

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]	Reserve Serviceable Population	10-Year Forecast Population	Surplus Population 10-Year
	m^3/d				m^3/d	356 Lcd	Equivalents	Res & Emp	Projection
Anger Avenue (Fort Erie)	24,500	22,050	13,903	57%	8,147	356	22,886	4,730	18,156
Baker Road (Grimsby)	31,280	28,152	19,923	64%	8,229	356	23,114	20,442	2,672
Crystal Beach (Fort Erie)	9,100	8,190	5,703	63%	2,487	356	6,986	1,081	5,905
Niagara Falls [3]	68,300	61,470	39,238	57%	22,232	356	62,450	22,309	40,141
NOTL	8,000	7,200	5,498	69%	1,702	356	4,780	1,036	3,744
Port Dalhousie (St. Catharines	61,350	55,215	33,372	54%	21,843	356	61,358	13,784	47,574
Port Weller (St. Catharines)	56,180	50,562	36,208	64%	14,354	356	40,319	9,392	30,927
Queenston (NOTL) [4]	500	450	183	37%	267	356	751	34	717
Seaway (Port Colborne)	19,600	17,640	11,789	60%	5,851	356	16,437	2,008	14,429
Stevensville/Douglastown	2,289	2,060	1,604	70%	456	356	1,280	994	286
Welland	54,550	49,095	35,897	66%	13,198	356	37,072	18,235	18,837

Note 1: 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 2: Region's 2021 W&WW MSP new design criteria calls for 255 Lcd residential and 310 Led employment generation rate including 90 Lcd of extraneous flow allowance. An equivalent of 356 Lcd is applied using 80% and 20% for residential and employment growth share, respectively.

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 m^3/d for the following properties: Niagara Parks Commission (75 m^3/d), Niagara Falls Bridge Commission (63 m^3/d), Shalamar Campground (38 m^3/d) and Ontario Power Generation (50 m^3/d). Due to these commitments and limited UAB, limited residential growth is expected within the next 10 years within the tributary area.