

APPENDIX 4

Regional Wastewater Treatment Facilities Reserve Capacity Calculation for 2019

Treatment Facility	MOE Plant Rated Capacity (m ³ /day)	90 % of Plant Capacity (1) (m ³ /day)	5-Year Average Daily Flow (m ³ /day)	% of Total Capacity Used	Reserve Treatment Capacity (Based on 90%) (m ³ /day)	Design Flow Rate (4) (365 L/c/d)	Reserve Serviceable Population (Equivalents)	10-Year Forecast For Population (Residential & Employment)	Surplus Population Over 10-Year Projection
Anger Avenue (Fort Erie) WWTP	24,500	22,050	14,037	57%	8,013	365	21,953	4,277	17,676
Baker Road (Grimsby) WWTP	31,280	28,152	19,266	62%	8,886	365	24,346	16,791	7,555
Crystal Beach (Fort Erie) WWTP	9,100	8,190	5,549	61%	2,641	365	7,236	1,443	5,793
Niagara Falls WWTP	68,300	61,470	40,839	60%	20,631	365	56,523	19,980	36,543
NOTL WWTP	8,000	7,200	4,483	56%	2,717	365	7,443	2,644	4,799
Port Dalhousie (St. Catharines) WWTP	61,350	55,215	33,261	54%	21,954	365	60,148	15,005	45,143
Port Weller (St. Catharines) WWTP	56,180	50,562	33,738	60%	16,824	365	46,094	10,052	36,042
Queenston (NOTL) WWTP (3)	500	450	231	46%	219	365	599	99	500
Seaway (Port Colborne) WWTP	19,600	17,640	11,660	59%	5,980	365	16,383	1,622	14,761
Stevensville/Douglastown Lagoon	2,289	2,060	1,508	66%	552	365	1,512	795	717
Welland WWTP	54,550	49,095	33,816	62%	15,279	365	41,860	12,912	28,948

(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%.

(2) The Niagara Falls WWTP assessment includes the sewage flows from the St. David's area of Niagara-on-the-Lake.

(3) 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 year period within the tributary area.

(4) Design Flow Rate incorporated 90 L/c/d of extraneous flow allowance