

APPENDIX 4

Regional Wastewater Treatment Facilities Reserve Capacity Calculation for 2018

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	13,869	57%	8,181	365	22,413	4,277	18,136
Baker Road (Grimsby) WWTP	31,280	28,152	19,180	61%	8,972	365	24,580	16,791	7,789
Crystal Beach (Fort Erie) WWTP	9,100	8,190	5,445	60%	2,745	365	7,521	1,443	6,078
Niagara Falls WWTP	68,300	61,470	39,898	58%	21,572	365	59,100	19,980	39,120
NOTL WWTP (3)	8,000	7,200	4,445	56%	2,755	365	7,548	2,644	4,904
Port Dalhousie (St. Catharines) WWTP	61,350	55,215	32,882	54%	22,333	365	61,187	15,005	46,182
Port Weller (St. Catharines) WWTP	56,180	50,562	32,925	59%	17,637	365	48,321	10,052	38,269
Queenston (NOTL) WWTP (3)	500	450	235	47%	215	365	589	99	490
Seaway (Port Colborne) WWTP	19,600	17,640	11,366	58%	6,274	365	17,190	1,622	15,568
Stevensville/Douglastown Lagoon	2,289	2,060	1,409	62%	651	365	1,783	795	988
Welland WWTP	54,550	49,095	33,566	62%	15,529	365	42,546	12,912	29,634

(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