

PART 2 – GENERAL REQUIREMENTS

2.2.2.2. Peak Daily Wastewater Volume

- 1) The expected peak daily volume of wastewater used for system design shall not be less than the values provided in¹
 - a) Table 2.2.2.2.A. for residential developments,²
 - i) when a basement is undeveloped, consideration must be made to the design for future use.
 - b) Table 2.2.2.2.B. for non-residential developments, or
 - c) accordance with Article 2.2.1.4.

¹ Intend: Sentence (1) — The expected volumes of wastewater listed in Tables 2.2.2.2.A. and 2.2.2.2.B. are for uses typically expected in the corresponding type of occupancy. With regard to residential applications, additional fixtures, high capacity fixtures, or home designs that support entertaining events are expected to increase the load substantially. The designer and or installer must consider additional load factors when determining the expected sewage per day. The expected volume of sewage set out in these tables includes a volume that allows for a reasonable number of operational personnel.

² Note: Clause (1)(a) - See Appendix B-2.2.2.2.(1)(a)

Table 2.2.2.2.A. Residential Peak and Mean Volumes of Wastewater Per Day			
Facility	Peak expected daily wastewater volume	Additional capacity required based on plumbing F.U. total	Mean daily wastewater volume
Single-family dwelling and duplex	<ul style="list-style-type: none"> • 2 bedrooms or less: 2 people per bedroom X 340L (75 Imp.gal.) per person • 3 bedrooms or more: 1.5 persons per bedroom X 340L (75 Imp.gal.) per person 	Add 50 L (11 Imp. gal.) for each fixture unit exceeding: <ul style="list-style-type: none"> - 25 in a 2- or 3-bedroom res. /occupancy unit - 28 in a 4-bedroom res. /occupancy unit - 31 in a 5-bedroom res./occupancy unit - 34 in a 6-bedroom res./occupancy unit - the sum of 34 + 3 F.U. / each bedroom over 6 bedrooms to determine F.U. load when there are more than 6 bedrooms 	228L (50 Imp. Gal.) per person
Residential Occupancy other than single family dwelling or duplex	<ul style="list-style-type: none"> • 340 L (75 Imp. gal.) X 2 persons per bedroom 	When the combined total of fixture units exceeds 20 in an occupancy unit, add 50 L for fixture unit over 20.	228L (50 Imp. Gal.) per person

¹ Note: Table 2.2.2.2.A. — Fixture units are a value assigned to plumbing fixtures related to their frequency of use, rate of discharge, and anticipated volume. The following table lists fixture unit values for common fixtures. For a complete fixture unit loading list, refer to the National Plumbing Code.

Fixture	FU value	Fixture	FU value
Basin	1	Kitchen sink	1.5
Bathtub	1.5	Laundry stand pipe	2
Single head shower 2 or 3 heads	1.5 3	Laundry tray (1 or 2 compartment)	1.5
Water Closet (toilet) flush tank	4	Floor drain 4 inch 3 inch 2 inch	3 3 2
Bathroom group	6	Bidet	1

**A bathroom group (the combined load from a tub/shower, toilet and basin) is rated at 6 fixture units.*

A floor drain does not need to be counted in the fixture unit load from a building unless it receives waste from a fixture or water-using device.

2.2.2.3. Additional or High Capacity Fixtures

- 1) Where additional fixtures or high capacity fixtures are installed, the system shall have the capacity to manage the additional load, determined in accordance with Table 2.2.2.3. or by the application of Articles 2.2.1.4. and 2.2.1.5.^{1,2}

¹ *Intent: Sentence (1) — This table provides a minimum estimate of the additional volume needed to accommodate both increased overall peak flow and instantaneous loading generated by the fixture.*

² *Note: Sentence (1) – See Appendix B-2.2.2.3.(1)*

Table 2.2.2.3. Fixtures that Require Additional Design Capacity	
Fixture	Add to expected peak daily wastewater volume in litres (Imp. gallons) per day
Hydro-massage and soaker tubs (fill and drain style)	[Volume of tub in litres (minus 340 liters) x 2] [Volume of tub in Imp. gallons (minus 75 gal.) x 2]
The design Peak Flow needs to increase to adequately handle the instantaneous flow from these fixtures. Flow equalization should be included in the <i>system</i> if these types of fixtures are present in the <i>development</i> as required by Article 2.2.1.5	
Water Softener Discharge	15% increase in peak daily wastewater volume
Other High Capacity Fixture	A volume reasonably anticipated from the specific fixture shall be added to peak daily wastewater volume and will consider the impact on peak instantaneous flow.
High Flow Volume Showers (discharging in excess of 13 L (3 Imp. gal.) per minute)	Add 50 L (11 gallons) for every 6 L (1.5 gallons) per minute or portion thereof that exceeds a 13 L (3 Imp. gal.) per minute discharge (normal shower discharge)