



Water Conservation For Dwellings

The Building Standards Department issues Builder Tips as part of our customer service program. They are designed to provide an improved understanding of the Building Code and to reduce the costs associated with correcting infractions. Please contact your area building inspector for further information or call the Building Standards Department at 905.475.4848 extension 2189

12.4.1.1. Plumbing Systems

(1) All buildings shall conform to the water efficiency requirements of Subsection 7.6.4.

7.6.1.6. Flushing Devices

(1) Flushing devices that serve water closets or urinals shall have sufficient capacity and be adjusted to deliver at each operation a volume of water that will thoroughly flush the fixture or fixtures they serve.

(3) Except as provided in Sentence (4), water closets and urinals shall have an integral means of limiting the maximum amount of water used in each flush cycle to that specified in Table 7.6.1.6.-A.

(4) In buildings classified as Group C occupancy, the flush cycle for each fixture that is a water closet or urinal shall not exceed the maximum water used in each flush cycle listed for that fixture in Table 7.6.1.6.-B.

7.2.10.6. Valves, Supply and Water Fittings

(2) Except for lavatories in healthcare facilities, emergency eye washes, and emergency showers, supply fittings and individual shower heads shall have an integral means of limiting the maximum water flow rate to that specified in Table 7.2.10.6. (See Note A-7.2.10.6.(2)).

OBJECTIVE

Water conservation is a high priority for the Province of Ontario and the City of Markham. The 2012 Building Code supports conserving Ontario's water with the Water Opportunities and Water Conservation Act, 2010, which received Royal Assent on November 29, 2010.



The Building Code can support water conservation through mandatory efficiency measures and enabling provisions that promote the use of non-potable water for a range of purposes. The maximum flush cycle for water closets can be considered as method of meeting the objective to avoid excessive water consumption and to reduce the risk of depletion of this natural resource.

Therefore, the Building Code requires,

- A tank-type water closet to have a maximum litres per flush (LPF) of 4.8., and
- Restricting the flow velocity for shower heads in residential occupancies to a maximum of 7.6 liters per minute.

Table 7.6.1.6.-B
Water Usage per Flush Cycle for Sanitary Fixtures in a Group C Occupancy
 Forming Part of Sentence 7.6.1.6.(4)

<i>Fixtures</i>	Maximum Water Usage per Flush Cycle, LPF
Water Closet (Tank Type)	4.8 ⁽¹⁾
Water Closet (Direct Flush)	4.8
Urinal (Tank Type)	1.9
Urinal (Direct Flush)	1.9

Notes to Table 7.6.1.6.-B:

(1) Water closets which provide a dual flush cycle option of both 4.1 LPF or less and 6.0 LPF are deemed to comply.

Table 7.2.10.6.
Water Flow Rates from Supply Fittings
 Forming Part of Sentence 2.2.10.6.(2)

Supply Fittings	Maximum Water Flow Rate, LPM
Lavatory supply fittings	
private	5.7
public	1.9
Kitchen supply fittings (except those in industrial, commercial or institutional kitchens)	8.3
Shower heads	7.6