uses water efficiently can reduce costs through lower utility charges, less sewerage volume and reduction in energy use. Water efficient fixtures combined with sensible use of water saves water and money.

## APPLICABILITY

This regulation is applicable to all building types. Refer to Table 101.07(1) in Section One - Administration for detailed applicability levels.

## IMPLEMENTATION

Use of water efficient fixtures in buildings is an effective way to reduce water consumption. This regulation stipulates fixed flow rates and flush rates for showerheads, faucets, sinks, urinals and toilets. The maximum flow rate defined in Table 601.01 (1), must not be exceeded.

Projects should use the specifications for water fixtures given in this regulation and should not exceed the values under test conditions. As the water pressure in buildings varies, the actual flow rate also varies. Maximum flow rate for the water fixture must be achieved at a water pressure of 300 kPa (3 bar), under factory test conditions. A pressure flow curve for the water fixture should be provided and documented.

Fig. 601.01(1): Water Efficient Fixtures

Some of the water efficient fixtures (fig. 601.01(1)) are discussed below.

**Low flow fixtures**: Low flow plumbing fixtures consume less water than conventional fixtures with the help of aerator nozzles. Aerator nozzles generally introduce air to water that creates an impression of a larger flow of water than what is actually delivered.

**Dual flush toilets**: Dual flush toilets incorporate two different types of levers or buttons, both connected to its own exit valve. While the larger lever or button provides the full volume of water for flushing, the smaller lever or button provides a significantly lower volume of water for flushing. This gives flexibility and choice to building occupants to optimally use the flush system. An indication of the low flush option on a dual flush toilet should be provided.

**Automatic or push-button faucets**: For all public facilities, automatic faucets should be equipped with proximity sensor (active infrared sensor) to detect the hand motion and release the valve for water flow. Alternatively, timer or push-button faucets should be provided that would only dispense water when the button is pressed, for the predefined duration.

**Automatic or timed flush Cisterns**: Automatic or electronic cisterns are provided with Passive Infrared Sensor (PIR) which identifies when the urinal has been used, by detecting the motion which then activates the flush. Automatic cisterns also have an override button for manual flushing.