

## Clean Water down the Drain

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The average household uses 80-100 gallons of water per day. The largest use of water in a residence is flushing toilets. According to the American Water Works Association, the average person flushes the toilet 5.5 times per day. Prior to 1980, most water tanks for toilets ranged from 5-7 gallons. In 1980 the average toilet tank was 3.5. In 1992, the National Energy Policy Act mandated that all new toilets nationwide to be 1.6 gallon tanks. There are still many buildings that continue to use 3.5 gallon toilets and even 5-7 gallon toilets.



*The exercise below is designed to demonstrate how much water is used to flush toilets in a typical building.*

A building located on Virginia Commonwealth University's campus has 146 toilets. These are 1.6 gallon toilets that adhere to the National Energy Policy Act. On average, there are 460 people per day that access the building. Forty percent are women and sixty percent are men. Assuming that people in this building are typical in their bathroom use...

- How many gallons of potable water are used in this one building on a daily basis to flush toilets? What about over the course of a semester?
- VCU has approximately 200 buildings, but only twenty are comparative to the size of the one used in this example. How much water do these twenty buildings use?

### Something to think about...

Keep in mind this number is not comprehensive for the entire campus' water use. Not all buildings across the campus have been retrofitted to the 1.6 gallon mandated toilet and many buildings were included in this analysis. Thus, this doesn't account for many of the toilets on campus and it doesn't consider water from sinks, showers and laboratories. What are some solutions to reducing potable water use on campus? Is conservation enough?