

The plentiful snows and rains of the last months have certainly been a welcome departure from the excessively dry weather of last fall. With this return to normal precipitation levels, the calls for water conservation have quieted. While perhaps no longer in the forefront of our thoughts, conservation will always be an important component in preserving our water supply. Improving the efficiency of water using devices will not only help conserve the precious water resources of the community, but will also reduce costs for consumers without adversely impacting their quality or way of life.

When undertaking efforts to improve their water using efficiency, consumers frequently choose to upgrade their toilets to newer, 1.6 gallon per flush models. These low-flow type toilets can dramatically reduce the amount of water used in a home, considering that older models used anywhere from 3.0 to 7.0 gallons per flush.

While immediate savings are recognized with the installation of a low-flow type toilet, these savings are not always permanent. With time, the flush valve closure mechanism, most often a flapper, will fail from age or some other factor; failed flappers that go without replacement cause water leaks, thereby diminishing water savings. The average life of a flapper is five years.

One of the greatest factors effecting flapper durability is the use of toilet bowl cleaners. Over the years, there have been two types of drop-in toilet bowl cleaners on the market. The first was the in-bowl type that hung on the side of the toilet bowl and dispensed chemicals as the toilet was flushed. The more widely used second type is the in-tank variety. This is a tablet that is dropped into the tank of the toilet where it is left to slowly dissolve into the water and is then flushed into the bowl.

While the in-tank type toilet bowl cleaner may be more convenient for the consumer, it appears to also be one of the major factors leading to the degradation of flappers. It is believed that the chemicals react with the plastic of the flapper valve, causing them to warp, crack or blister. Additionally, the chemicals in the toilet bowl cleaner lower the pH of the tank water, further damaging the flapper.

Toilet flapper manufacturers have combated this problem with some degree of success, by developing flappers resistant to the effects of the in-tank bowl cleaners. Unfortunately, there are toilet bowl cleaners on the market with chemical compositions that can accelerate the degradation of these improved flappers as well.

While in-tank toilet bowl cleaners are a leading cause of flapper failure, other factors including age and low water pH will also contribute to their failure. Should a flapper begin to fail, it is important to replace it immediately so that water savings can be maintained.

In replacing failed flappers, choose the replacement carefully as one of the most common causes of diminished water savings in a low-flow toilet is the installation of the wrong flapper valve. In most instances “universal” replacement flappers are chosen. Unfortunately this term is very misleading, for in many cases they are not physically compatible with all toilet flush valves. Should the “universal” replacement happen to be physically compatible, in that it does not leak, most often, the gallons of water used with each flush will still be greater than those used with the original flapper. On average, even when installed correctly, a “universal” replacement valve will allow for double the amount of water to be used per flush than was with the original flapper.

To insure continued water savings it is best to contact the original equipment manufacturer (OEM) to obtain exact replacement part information. In many instances the flapper required might not be carried by a local retail home improvement store since their shelf space is so limited. Hank Martin of Lowe’s Home Improvement Store in Charlottesville suggests that the best thing for a consumer to do is check the toilet for the manufacturer’s name or seal. He says it should be in the bowl or at the back of the bowl where it attaches to the tank. Once you know the make of your toilet, find a plumbing supplier in town who carries that brand. That supplier will most likely have the correct replacement flapper, and if not will be able to order it.

Once you have obtained the necessary after-market replacement flapper determine if it is adjustable. If so, make sure to adjust the flapper to use 1.6 gallons per flush, as in most instances adjustable flappers are pre-set to the highest water use levels.

While it might take more effort than anticipated, choosing the correct replacement flapper will ensure continued water savings. It may also save you a few sleepless nights caused by a running toilet.