



Saving money through water usage adds up quickly for hotels

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Potable water consumption in the U.S. is about 340 billion gallons daily - accounting for about one-fourth of the U.S.'s total renewable fresh water supply, according to an article in GreenBiz.com. This water is drawn from rivers and reservoirs and utilized to support uses including agricultural, recreational activities, industrial, residential and commercial, as in the hospitality industry. The water is then returned to various bodies of water after use, often without treatment first. Our water supply is being threatened by our usage.

Water usage can be large or small, and it's small water usage that saves money. When water usage is large, maintenance and life-cycle costs for building operations are increased. Additionally, utilities and paying for additional municipal water supply and treatment facilities have higher costs. When a hotel's water usage is reduced through maintenance and conservation measures, thousands of dollars a year can be saved not only in lowered utility bills but also in maintenance and life-cycle costs.

Some estimates indicate that a 30% savings can easily be realized with water conservation measures in commercial buildings, including hotels. Potable water savings can be realized with low-flow fixtures and appliances, sensors, and automatic controls. Educating guests to the focus of saving water will help reduce their water consumption as well. Further savings can be realized with the use of non-potable water for landscape irrigation and fountains, building systems and toilet flushing. Non-potable water sources include runoff from rain and irrigation, and gray water (from sinks, showers, and washing machines). Landscaping can also be planted with water-wise, or xeric, plants so that minimal irrigation is needed.

Toilet flushing uses the most water in commercial and residential buildings. Replacing old toilets with new toilets reduces each flush from about 3.5 gallons to 1.6 gallons per flush. Alternatives to traditional toilets include dual-flush and composting toilets, and waterless urinals.

Sinks, showers, washing machines, dishwashers, ice makers, and HVAC systems are other water consumers in hospitality venues that can have conservation measures applied for further savings. Automatic controls can further help reduce water consumption. With preventative maintenance even more savings can be realized through stopped leaks. When less water is used, less sewage is generated, and thus those fees are reduced too. Less water going through water heaters contributes to energy savings (one hotel realized a 5% utility savings when only 25% of their guests participated in a towel/sheet reuse program), and a longer life-cycle for the water heaters. Financial savings abound when water conservation is practiced.

O'Neill & Siegelbaoum and the RICE Group reported to the Seattle Public Utilities (SPU) in July 2002 their findings on hotel water conservation in the Seattle area. The lodging sector, representing less than 1% of commercial accounts, consumed about 5% of commercial water in the SPU service area.

Hot tip

Installing low-flow shower heads in guest baths is typically the single most effective water conservation savings step that a hotel can implement. A low-flow shower head should deliver 2.5 gallons of water or less per minute. To measure whether a shower head is meeting this standard, place a two-quart container on the floor of the shower and position it in the middle of the shower stream. With the shower on full, count how many seconds it takes to fill the container. If it takes fewer than 12 seconds, the shower head should be replaced.

In one survey they took, they found total water consumption ranged from 100 gallons a day per guestroom to over 400 gallons a day per guestroom. They further found that domestic use (sink, toilet, and shower) was about one-third of the total, or 50-150 gallons a day per guestroom. When conservation measures were implemented, typical savings ranged from 10-20% in domestic use and 30% for the entire property.

The savings discussed in the Seattle hotel report are merely one example of what water conservation can accomplish. If other hospitality businesses focused on water conservation, as hotels would be prudent to do, they also would experience money conservation. Making your water usage small will make your savings big. ✧

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