

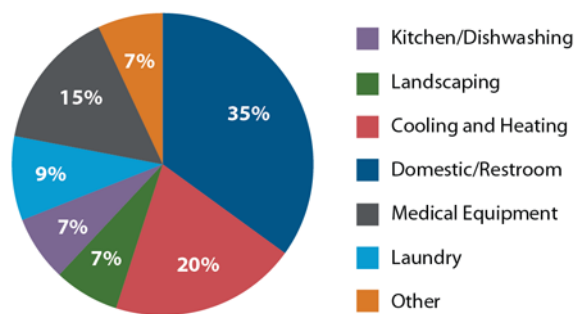


# Saving Water in Hospitals

Commercial and institutional buildings use a large portion of municipally supplied water in the United States. With so many businesses making up the commercial and institutional sector, there are great opportunities to conserve water. *WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities* promotes water-efficient techniques that can be applied across a wide range of facilities with varying water needs.

Water used in hospitals and other health care facilities comprises 7 percent of the total water use in commercial and institutional facilities in the United States.<sup>1</sup> The largest uses of water in hospitals are cooling equipment, plumbing fixtures, landscaping, and medical process rinses.

## End Uses of Water in Hospitals



Created by analyzing data from: New Mexico Office of the State Engineer, American Water Works Association (AWWA), AWWA Research Foundation, and East Bay Municipal Utility District.

## THE BUSINESS CASE FOR WATER EFFICIENCY

Over the past 10 years, the costs of water and wastewater services have risen at a rate well above the consumer price index. Hospital facility managers can expect these and other utility costs to continue to increase in order to offset the costs of replacing aging water supply systems.



Operational costs and environmental impacts are influenced by water use. Industry estimates suggest that implementing water-efficient practices in commercial and institutional facilities can decrease operating costs by approximately 11 percent and energy and water use by 10 and 15 percent, respectively.<sup>3</sup>

Hospital facility managers can benefit from employing water-efficient practices through operational improvements and upgraded equipment. For example, high-performing equipment and fixtures are now available that use at least 20 percent less water than standard models.

To increase savings beyond utility bills, hospital facility managers can take advantage of financial incentives for installing water-efficient equipment. Many local utilities offer rebates for taking on water-saving projects, allowing equipment upgrades to pay for themselves.

### Putting Water Efficiency to Work

After an extensive leak detection program, a Washington State hospital replaced and retrofitted its restroom, kitchen, mechanical, and medical fixtures and equipment with water-efficient models. The hospital estimates that it saves approximately \$140,000 per year in water and wastewater bills and 3.9 million gallons per year in water use.

Hospital patients and staff can benefit directly from water-efficiency measures as well. Patients have expressed greater satisfaction with environmentally sustainable practices, while staff efficiency can be improved by upgrading technology, such as digital X-ray equipment.

*WaterSense at Work* provides tips to help health care facilities implement measures and make upgrades to become more water-efficient, which is good for the health of the entire organization.

### USING WATERSENSE AT WORK

More information on operations, maintenance, and user education of equipment and processes can be found in

the following sections of *WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities*:

- Section 1: Getting Started
- Section 2: Water Use Monitoring and Education
- Section 3: Sanitary Fixtures and Equipment
- Section 4: Commercial Kitchen Equipment
- Section 5: Outdoor Water Use
- Section 6: Mechanical Systems
- Section 7: Laboratory and Medical Equipment
- Section 8: Onsite Alternative Water Sources

### Look for the Label



- Install WaterSense labeled showerheads, toilets, bathroom faucets, and flushing urinals where appropriate.
- WaterSense labeled products have been independently certified to be at least 20 percent more water-efficient and perform as well or better than standard models.
- Check automatic sensors on faucets, toilets, and urinals to ensure they are operating properly and avoid unnecessary water use.

### Water Landscapes Wisely



- Design water-smart landscapes that provide beautiful surroundings while reducing water needed for irrigation.
- Improve irrigation efficiency by hiring a professional certified through a WaterSense labeled program to audit an existing system or design and install a water-efficient system.
- Cut down on water loss from evaporation, wind, and runoff by replacing existing clock timers with WaterSense labeled irrigation controllers.

### Keep Cooling Towers Cool



- Implement energy-efficiency measures to reduce the need for building and equipment cooling and heating, which will reduce amount of water required by these systems.
- Keep indoor temperatures at a comfortable setting while increasing the efficiency of cooling towers, evaporative coolers, and boilers by using alternative sources of water, such as air handler condensate and captured rainwater.
- Monitor cooling tower and boiler water chemistry to minimize the mineral buildup in the system and maximize the number of times water can be recycled through the system.

For more information or to download a copy of *WaterSense at Work*, visit the WaterSense website at [www.epa.gov/watersense/commercial](http://www.epa.gov/watersense/commercial).

<sup>1</sup>Dziegielewski, et al. 2000. *Commercial and Institutional End Uses of Water*. American Water Works Association Research Foundation.

<sup>2</sup>2009. *Water Use in Buildings SmartMarket Report*. McGraw-Hill Construction.