look for WaterSense Meets EPA Criteria

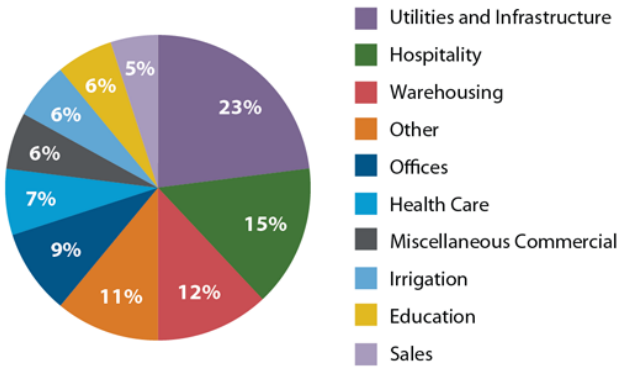
Best Management Practices for

Commercial and Institutional Facilities

Although a large portion of our public water supply is used by residential customers, commercial and institutional buildings can account for 17 percent of the municipal water demand in the United States.[1] As significant water users, commercial and institutional facilities have the opportunity to conserve this precious resource and save on their operating costs.

The U.S. Environmental Protection Agency's (EPA's) WaterSense® program created *WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities* to help managers and owners of restaurants, office buildings, hotels, schools, hospitals, and other building types—identify and take advantage of water-saving opportunities.

Commercial and Institutional Water Use in the United States by Sector



Source: Dziegielewski, et al. 2000. *Commercial and Institutional End Uses of Water*. American Water Works Association Research Foundation.

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. 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.

The business benefits of implementing water-efficiency measures within commercial and institutional facilities include reducing operating costs and creating more sustainable practices. In addition to water costs, facilities will see a decrease in energy bills because of the significant amount of energy associated with heating water. Commercial and institutional facilities can significantly reduce water use through water-efficient fixtures, technologies and techniques.

START SAVING

Implementing water efficiency at work starts with understanding a facility's water-using processes. Developing a water management plan, which includes conducting a facility water assessment, helps managers and owners understand how much water their facilities use and which processes require the most water. An assessment also helps identify potential water-saving opportunities and calculates the payback periods to help prioritize options to reach water savings goals.

Putting Water Efficiency to Work
Upgrading to an ENERGY STAR® qualified commercial dishwasher can save a business an average of $900 per year on its energy bills, in addition to 52,000 gallons of water and more than $200 on water bills.

Improvements to commercial facility processes taking place in kitchens, restrooms, and outdoors can yield significant water savings.

IN THE KITCHEN

With so many different water needs for food preparation and clean-up, any facility that serves food—including cafeterias, restaurants, and some hotels, schools, and hospitals—can find many opportunities to shrink its water footprint.

Assessing water-intensive equipment for proper operation and efficiency can help to eliminate water waste. Tools such as dipper wells and wok stoves, for example, can use quite a bit of water because they tend to flow continuously. Additionally, pre-rinse spray valves—fixtures used to remove food particles prior to dishwashing—can have higher flow rates than necessary. Retrofitting or replacing these items with high-efficiency models can be a cost-effective way to reduce water and energy use in commercial kitchens.

RESTROOM UPGRADES

WaterSense labeled plumbing products are independently certified to use at least 20 percent less water and perform as well as or better than standard models. Where appropriate, WaterSense labeled toilets, flushing urinals, and showerheads can lower a facility's water and embedded energy use. Additionally, inspecting faucets and other fixtures for leaks can help ensure they aren't sending water and money down the drain.

OUTDOOR WATER USE

If a facility irrigates its landscape, it could potentially be wasting water due to evaporation, wind, or runoff. Water-efficient irrigation products and practices—such as native plantings, water budgeting, seasonal scheduling, or WaterSense labeled weather-based irrigation controllers—could cut the amount of water lost outside by as much as 50 percent.

FOR MORE INFORMATION

From schools to hotels, *WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities* details WaterSense labeled products, practices, and proper operations, maintenance, and user education for a host of water-using technologies. Additionally, the guide offers water-efficient options for equipment retrofits and replacement, as well as tips to reduce a facility's water use and methods to evaluate the savings these efficiency measures can achieve.

More information on operations, maintenance, and user education of equipment and processes within commercial and institutional facilities can be found in *WaterSense at Work: Best Management Practices for Commercial and Institutional Facilities*, which includes the following sections:

- 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

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

[1]Dziegielewski, et al. 2000. *Commercial and Institutional End Uses of Water*. American Water Works Association Research Foundation.