

look for



Saving Water in

Restaurants

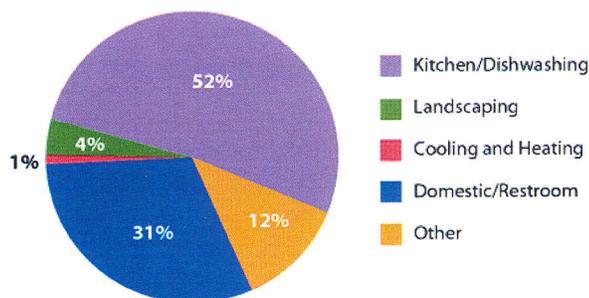
Submitted by staff
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Commercial and institutional buildings use a large portion of municipally supplied water in the United States. With so many businesses making up the commercial and institutional sector, there are great opportunities to conserve water. *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 hospitality and food service establishments accounts for approximately 15 percent of the total water use in commercial and institutional facilities in the United States.¹ The largest uses of water in restaurants are associated with equipment and processes that take place in the kitchen. Restrooms follow kitchens as the second highest water use in restaurants.



End Uses of Water in Restaurants



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. Restaurant owners can expect these and other utility costs to continue to increase in order to offset the costs of replacing aging water supply systems.

Operating costs and environmental impacts are influenced by water use. Industry estimates suggest that implementing water-efficient practices in commercial facilities can decrease operating costs by approximately 11 percent and energy and water use by 10 and 15 percent, respectively.² Because food service facilities use hot water for many tasks, reducing water use can provide real benefits by decreasing energy bills.

To maximize savings on utility bills, restaurant owners can benefit from assessing some of the most water-intensive equipment used in kitchens. Equipment such as dipper wells and wok stoves, for example, can use quite a bit of water due to a continuous flow. If it is necessary to replace existing food service equipment, upgrading this equipment with water-efficient models can save money, with a relatively short payback period.

Putting Water Efficiency to Work

After upgrading its kitchen with high-efficiency pre-rinse spray valves, a Boston University cafeteria successfully reduced its water use by more than 48,000 gallons per year, a 63 percent decrease. With cost savings from water and sewer fees alone, a restaurant's simple payback period for replacing old, inefficient pre-rinse spray valves could be as short as one month.

Restaurant owners will also benefit from water-efficiency measures through increased customer satisfaction. In general, consumers have shown a preference for businesses that have made a commitment to reducing their environmental impact. With some customers seeking green restaurants, demonstrating environmental sustainability through water efficiency is a smart way to gain a competitive edge. *WaterSense at Work* provides guidance on water-efficient operation of restaurants and institutional cafeterias, allowing for a more competitive and environmentally sustainable business.

USING WATERSENSE AT WORK

More information on operations, maintenance, and user education of equipment and processes within restaurants

and other food service facilities 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

Run an Efficient Kitchen



- Upgrading dishwashers, ice machines, and steam cookers to ENERGY STAR[®] qualified models will reduce water and energy use by at least 10 percent. These models typically use less water by reusing water throughout cycles.
- Maximize the efficiency of pre-rinse spray valves, food disposal systems, or equipment that relies on a boiler—such as combination ovens, steam kettles, and steam cookers—to use significantly less water.
- Consider replacing equipment that discharges water continuously (e.g., dipper wells or wok stoves) with efficient models or turn off when not in use.
- Educate users on proper dishware prep and loading techniques to reduce the overall water used.

Look for the Label and Other Areas of Savings



- Install WaterSense labeled toilets, bathroom faucets, and urinals where applicable. These 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.
- Onsite alternative water sources from one source can be treated and reused in another application (e.g., irrigation, toilet flushing, decorative water fixtures).

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

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

²2009. *Water Use in Buildings SmartMarket Report*. McGraw-Hill Construction.