

Water-efficiency in Healthcare

Water-saving opportunities throughout your facility

THERE'S NO QUESTION—healthcare facilities use large quantities of potable water. Is it possible to make reductions and maintain infection control? Absolutely! The following provides some food for thought with respect to saving water and money in your healthcare facility.

IRRIGATION SYSTEMS

Irrigation systems are big water users for many facilities. Installing native and/or adapted plantings is a good way to reduce your water needs. Grouping plants with similar water needs and installing mulch are keys to success. Placing your irrigation system on a separate meter can help you to identify when there's a problem.

Another way to save water in your landscape is to use a high-efficiency irrigation system. Drip irrigation can save 60–70% over typical spray heads by putting water right where it's needed—rather than on your sidewalk or driveway! In some parts of the country, a computerized system that uses weather data to determine the rate of evapotranspiration and automatically schedule irrigation can be a useful tool.

PLUMBING FIXTURES

Low-flow plumbing fixtures have traditionally been relegated to the residential market. In the last few years, however, availability of products that will work in health-care installations has increased dramatically in the U.S. Dual-position flush valves can be used to provide both 1.1 and 1.6 gallon per flush options to the user. Lavatory faucets using 1 gallon per minute (or 0.17 gallons per 10 second hand-wash) can be purchased with micro-hydro-power technology to capture the energy of the water stream for electric eye battery recharge. Urinals with 1/8–1/2 gallon per flush can save 50-80% of water used in conventional fixtures.

MEDICAL EQUIPMENT

Hospital equipment purchasers should also consider water-saving options. Many facilities are saving water by default as they convert from traditional X-ray equipment to digital. Water-cooled equipment can be designed with closed, re-circulating systems. Rather than using continuous cold water to temper steam condensate, consider a system that monitors drain temperature and applies cold water only when needed.

FOOD SERVICE

The food service kitchen is another great place to look for water-savings. Simply educating your staff on what your dish machine can do and ensuring that units are run as full as possible can drastically reduce the amount of water used for pre-rinse and dishwashing. If you haven't replaced your pre-rinse spray hose nozzle recently, try updating the head to meet the new 2.5 gallon per minute Federal mandate. For facilities that compost, food/trash strainer baskets can be used instead of garbage disposals. If you aren't composting, check into a scrapping, pre-flushing and disposing system that uses 75% recycled water.

If your dish machine has seen better days, replacing it will almost certainly reduce your energy and water consumption, as manufacturers have made great strides in these areas in recent years. ENERGY STAR is launching a program for commercial dishwashers on October 11, 2007. Models earning the ENERGY STAR must meet specific low-water use criteria during final rinse and use less energy while idling between wash cycles. Consider this as minimum criteria for any new purchase.

Another important thing to consider is the installation of proper softening and filtration equipment. This can reduce the amount of chemicals used and the number of items that get run through a second time. It can also reduce maintenance on booster heaters, beverage equipment, coffee makers and dish machines.

Remember that implementing water saving measures also results in reduced operating expenses—that's money that can be redirected to other uses. Practices and systems that save hot water also save energy (more money). If you have existing facilities, a quick audit can reveal the low-hanging fruit. If your starting a capital project, make sure your design team puts a high priority on water savings!

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