

This winter will go down in the books as one of the wettest in California's recorded history. It rained so much that people in Portland were feeling sorry for us! The incessant downpour helped to replenish our drought-starved water reserves but don't break out the party hats just yet. Even after that incredible soaking, our reservoirs remain far below capacity. It would take several years of heavy rain to lift our state's water supplies "into the blue." Factor in California's estimated population growth and you can understand why water agencies statewide are nervous about meeting demand. What does this have to do with your restaurant? Water is a commodity, just like meat, dairy, and produce, that you have to purchase but, unlike other those other commodities, water is routinely wasted in large quantities in almost every food service operation from the smallest café to the largest institution. As water becomes increasingly scarce, water utilities are forced to up the price and that means wasting water is bad for your bottom line. Let's have a look at some of the more common no-cost/low-cost techniques for tightening up your water use and get a sense of the extra money you'll make in the process!

BUYER BE EDUCATED

You buy water by the unit, where one unit is equal to 100 cubic feet (ccf) or 748 gallons. Water utilities have separate rates for the incoming fresh water and the outgoing wastewater or "sewer charge". Because wastewater requires more treatment, you pay more for the sewer charge than for the fresh water and sometimes that sewer charge is three or four times higher. This is important to remember because every drop wasted is billed twice! As if this weren't enough, there is one additional consideration. Water use directly drives the energy use of several of your appliances including your hot water heater. So, every drop of hot water that is wasted has three price tags – water, sewer, and energy! For our cost examples, we will assume a charge of \$2.00 for a unit of water and a conservative \$3.00 for the associated sewer charge. We'll also assume you have a gas hot water heater, which costs about half as much to operate as an electric one.

THE LOWEST HANGING FRUIT

The simplest, most cost effective, water-saving strategy that you can adopt is to install a low-flow pre-rinse spray valve in your dishroom. The pre-rinse sprayer is what you use to knock food off dirty dishes before running them through the dishwashing machine. Most of the valves on these sprayers are designed at anywhere from 2.5 gallons per minute (gpm) to 5.0 gpm. Over the course of the operating day, the water passing through these high-flow valves can really add up. Replace your high-flow pre-rinse spray valve with a low-flow unit, which is defined as 1.6 gpm or less, and you'll save anywhere from \$100 to \$400 a month on a typical 3 to 5 hour per day usage. That's a great payback on a unit that only costs about \$60 full retail! And don't worry, your dish washing won't slow down because of the low-flow valve, they rinse plates just as fast as the high-flow units and in some cases even faster! Here's the greatest part, in most of California, your local power company will give you a rebate to buy the low-flow valve or your water utility will come to your kitchen and install one for free as part of the Rinse & Save program. This is easy money – so go for it!

THE LITTLE LEAK THAT ATE YOUR MONEY

That small amount of water that is dribbling out of a leaky faucet, spray valve, or hose valve may seem insignificant, but the water is leaking all day, every day and the gallons start to add up. Example: a small cold water leak of just under 0.2 gpm, which is about 10 gallons an hour, will add up to 100,000 gallons by years end, costing you \$700 in water alone. If that's a hot water leak, then you can count on spending an additional \$700 on energy. Repairing a water leak is usually as simple as replacing a washer. The bottom line is that water leaks are a drain on your profits and should be a priority maintenance item.

DON'T GET HOSED

The hose is used everyday to clean floors, mats, sidewalks, parking lots, walls, employees' cars, etc. A heavy-duty hose can deliver anywhere from 9 to 20 gpm, so judicious use is a wise practice. Every hose should be outfitted with a high-pressure nozzle, which will make it much more effective while saving you money. If the hose is hooked up to a hot water line, then be especially careful. Water brooms are an efficient alternative to the hose-and-nozzle for cleaning floors, sidewalks, and parking lots. Like the pre-rinse valves, these devices use a high-pressure spray to do some serious cleaning but consume only about half the water of a hose with a nozzle. (Using one of these will also earn brownie points with your local municipality because they do not send any run-off down the storm drains.) Based on an average use of an hour per day, a water broom could save you about \$500 in water and another \$500 if that water was heated.

DIPPING INTO YOUR BANK ACCOUNT

Dipper wells are used as utensil rinse-and-hold stations on the front line. They seem so cute and innocent but typically, the dipper well valve is turned to full flow and never turned off during serving hours. Once again, that small stream, running continuously, will add up to a surprising amount of water. Example: at a typical flow rate of 0.5 gpm, and a 16-hour operating day, a dipper well will use 175,000 gallons a year and cost over \$1,000 in water and sewer charges. If the dipper well is flowing hot water, then you will pay another \$1,000 for the energy to heat that water. That's over \$2,000 a year for one little spigot! What to do? Turn 'em down to a lower flow, turn 'em off if you can, replace them with a lower flow valve, or analyze your process and see if you can do without.

DOING YOUR PART

Water is essential to your business as well as your quality of life and while two-thirds of our planet is covered with water, the supply of fresh, potable, water is very limited. Unless we get a string of wet winters or we get a lot better at conservation, water will be the next "energy crises" that we face as a state. It makes sense from both a business and a civic standpoint to do your part now to conserve this precious resource so there will be plenty to go around!

If you'd like to calculate your own energy and water savings, then use the Pre-rinse Spray Valve Calculator, a simple online tool created by the Food Service Technology Center and located on the FSTC website at <http://www.fishnick.com/tools/watercost>.

These energy saving tips are offered by the Food Service Technology Center (FSTC), an unbiased food service resource center located in San Ramon, CA and funded by California utility ratepayers under the auspices of the California Public Utilities Commission. For more information on the FSTC and for our schedule of free energy efficiency seminars, please visit our website at www.fishnick.com.