



# Water Conservation for Hotels

**Water is one of our community's most precious resources and it plays an important role in the operations of most local businesses. Using water efficiently is important to businesses for both environmental and financial reasons. The Resource Venture is a partner in the Saving Water Partnership and provides free technical assistance to show businesses how to conserve water. We can help you take advantage of financial incentives which cover up to 50% of the cost of installing or replacing inefficient fixtures and equipment. Businesses that have participated in the program over the past six years have experienced water and wastewater savings of approximately \$3.5 million each year.**

## General Operations & Maintenance

- Read water meters monthly.** Compare the results to the same month of the previous year. This will help you to both identify leaks as they occur and monitor your conservation efforts.
- Discontinue using water to clean paved areas.** Instead of hosing down entrances, sidewalks, parking lots and loading docks, sweep or use a blower to clean these areas.
- Include water systems in building commissioning.** To make sure all the installed water-using equipment is functioning properly, include water systems in building commissioning plans and provide the building owner and maintenance staff with information on how to properly maintain all systems.

## Ice Machines

- Replace water-cooled ice machines with air-cooled.** A single pass, water-cooled ice machine can use one to several gallons of water per minute. An air-cooled ice machine doesn't use water for cooling. Savings can be as much as \$1,000 per year.

## Cooling Towers

- Automate your cooling tower.** Cooling towers use water through evaporation and "blow-down." Cooling towers that use manual controls often inefficiently control blowdown. This can result in wasted water, chemicals, energy and labor. Installing an automatic conductivity controller is often a cost-effective solution.
- Operate cooling towers & boilers according to manufacturers' specifications.** Reduce excessive blow-down. Many cooling towers operate below the suggested levels of total dissolved solids (TDS) unnecessarily. Adjust boiler and cooling tower blow-down rate to maintain TDS at levels recommended by manufacturers' specifications and required by the local water quality conditions.

## Sewer

- Install deduct meters.** This measure does not save water but it can reduce the sewer bill. To avoid getting charged sewer fees for water that is consumed on site such as with irrigation, cooling towers and laundry machines, consider installing a deduct meter on that equipment. Deduct meters allow the utility to deduct the consumed water use from your sewer bill. Before installing a deduct meter, call Seattle Public Utilities at **(206) 684-5800** to learn if this is the best option for your equipment.

## Guest and Public Bathrooms

Often, the payback period for an entire bathroom retrofit is less than four years.

- ❑ **Install water-efficient toilets and water-free urinals.** Replacing toilets that use 3.5 gallons or more per flush with high quality 1.6 gallon per flush models can produce substantial savings. Replacing urinals that use 2 gallons or more per flush with a model that uses .5 - 1 gallon can often produce substantial savings. Many Seattle area hotels have installed, high quality, water-efficient toilets and they are now saving thousands of dollars on their water and wastewater bills as a result. If you don't know how old your toilets are there are several methods to determine how many gallons of water they flush. Call the Resource Venture for assistance.
- ❑ **Preserve savings through proper toilet maintenance.** Many of the chemical toilet cleaners can lead to the deterioration of toilet flappers which can lead to toilet leaks. Please use only safe, bio-degradable cleaners.
- ❑ **Install faucet aerators.** Most restroom faucets use 2 to 4 gallons per minute, which is wasteful and unnecessary. Inexpensive and simple to install, high quality, low-flow faucet aerators (1.0 gpm) can reduce your hotels' faucet water consumption as much as 50% and reduce your energy cost of heating the water also by as much as 50%. Efficient faucet aerators can save about 1 gallon of water per person per day.
- ❑ **Check for leaks.** A dripping faucet or showerhead can waste up to 500 gallons per week! A leaking toilet can waste more than 50 gallons of water each day. To determine if a toilet leaks, squirt several drops of food coloring into the tank. If there is food coloring in the toilet bowl in 30 minutes when you return, then the toilet tank is leaking. The toilet's flapper is typically the cause of the leak. Check that the flapper has a solid seal. When replacing toilet flappers make sure that you use the same model of flapper that was designed for use with your toilet and that it is properly installed and adjusted.

## Restaurants

If your hotel has a restaurant, there are several opportunities for water and financial savings. Consider the following upgrades and/or practices:

- ❑ **Pre-rinse spray valves** - Install efficient pre-rinse spray valves.
- ❑ **Spray hose** - Install manual triggers on all sink spray hoses so that water is used on demand. Consider sweeping and mopping to reduce spray washing of interior and exterior spaces.
- ❑ **Dishwasher** - Look for leaks. A leak found in a local hospital's dishwasher was wasting \$1,300 in water each year. Check to make sure the dishwasher is not using more water than the manufacturer specifies and that water only flows when the dishes enter the machine. Limit dishwashing to full loads. If conveyor system is used, be sure water shuts off when each load is complete.
- ❑ **Garbage Disposals** - Install a foot pedal or other manual controls so that disposal water only runs when needed. If using a garbage disposal for food waste, allow water flow only during operation. Alternatives to garbage disposals are food donation and composting. For more information on food donation and food waste composting, contact the Resource Venture.
- ❑ **Thawing Food** - A common practice among restaurant staff is to put frozen food in the sink and turn on the water, often for an hour or more. This practice wastes huge amounts of water. Instruct staff to plan ahead and use a refrigerator to gradually thaw frozen food.
- ❑ **Walk-in refrigerator or freezer** - Check to see if the condensers are air- or water-cooled. If they are water-cooled, several gallons of water per minute pass through the equipment to cool it. Consider updating your equipment to air-cooled. The money spent to buy the new equipment will be paid back in no time through your water and sewer bill savings.

## Financial Incentives

Through the **Saving Water Partnership**, businesses can receive financial assistance to help improve their water conservation performance. Many types of cost-effective water-efficient projects will be considered for financial incentives and Resource Venture staff will help expedite your application. Here are just a few examples of water-efficient projects:

- Commercial ice machines: from \$200 to \$1,000 for replacing a water-cooled ice machine with an air-cooled machine.
- Replacement toilets and urinals: Usually \$80 to \$120 for replacing a high-flow fixture with a more efficient one. **Note: Free, Toto CST 703 toilets are available from SPU through December 2005. There is no limit on the quantity.**
- Commercial irrigation systems: up to 50% of the cost of improving system components.
- Cooling, refrigeration, commercial laundry and industrial processes: up to 50% of the cost of projects to increase water-use efficiency.
- Commercial coin-op laundromats: \$250 for replacing each inefficient washing machine.

For more information on these and other financial incentives, visit [www.resourceventure.org/rv/issues/water/incentives/index.php](http://www.resourceventure.org/rv/issues/water/incentives/index.php).

## At Your Service

The Resource Venture provides *free* environmental consulting services to Seattle-area businesses. We help companies lower their utility costs, obtain rebates, comply with regulations and receive public recognition, all while protecting the environment.

Since 1990, the Resource Venture has helped thousands of businesses recycle, use less water, prevent stormwater pollution and build sustainably. We are a program of the Greater Seattle Chamber of Commerce, in partnership with Seattle Public Utilities.



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