Florida *Green Lodging* Program
Best Management Practice
Water Conservation

Water conservation is a significant environmental challenge faced by Floridians. It is a precious commodity that Florida's tourism and industry depend on for economic viability. In Florida, the majority of drinking water comes from groundwater aquifers that are replenished by rainfall.

Many of the following water-saving solutions are easy and affordable to implement. Aside from the obvious decrease in water bills, savings are also realized through decreases in electricity, sewage and chemical costs.

Water conservation can be achieved through behavioral, operational or equipment Best Management Practices. Some of these changes cost very little to implement and can have large impacts on water usage.

Behavioral and Operational Water Conservation Best Management Practices

Develop, commit to and publicize the facility's plan to conserve water: The best plans are often those that have been soundly developed, have management and guest buy-in and are widely publicized to employees, guests and the general public. The water conservation plan should include areas of concern, specific action-based goals and detailed plan to achieve success.

Remind guests and employees to use water only when needed: It may seem simple to only use water when needed, but large amounts of water are wasted during simple activities such as teeth brushing, hand washing and shampooing.

Regularly track both water and sewage use: It is important to track and monitor all types of water usage, including sewage rates. An operational water-use tracking program will allow the facility to monitor for unusual variations. It is imperative that once variations are detected, the issue is resolved as soon as possible. Not only will water be conserved but the impact to the bottom line will be reduced.

Establishing a water efficiency plan from collected data is one method to prevent water waste. Knowing how water is used, how much is used, and its costs offers an understanding of which areas of water waste are causes for the most concern. The data collected can be used to create plots to track water usage on a daily basis and measure significant use each season to determine how outside temperatures affect water usage.

Conduct a water use assessment: Water assessments can be arranged from the local utility company or water management district. Contact the facility's water utility provider to arrange for an assessment. Most assessments are offered at no charge to the customer and can help identify ways to conserve water. The assessor may be able to offer information on monetary rebates or incentive programs to assist in any equipment or operational changes that may need to be made.

Install soil moisture or rain sensor on landscape irrigation systems: Installing soil moisture

meters or rain sensors will allow the facility grounds to be irrigated only when needed. Soil meters sense the amount of moisture in the soil and will indicate when the moisture level reaches a certain threshold. Rain sensors will automatically shut off the irrigation system if it begins to rain during the irrigation cycle.

Irrigate during the appropriate times: Do not irrigate during the heat of the day. The majority of the water used during this time will evaporate before it can reach the soil zone. Set timers on the irrigation system to run either in the early morning or evening. Contact your local State of Florida extension service agent, IFAS Solutions for Your Life, for the best time to water in your location.

Use Florida Friendly Landscaping: Florida-friendly landscaping uses plants and grasses that are native to Florida or to areas that have a similar climate. To reduce the amount of watering needed, these plants should also have an increased level of drought tolerance.

Implement a towel and linen reuse program in guest rooms: Towel and linen reuse programs allow guests staying longer than one night the option of reusing their sheets and towels for another day. Signs announcing the program and directions for participation should be posted in each guest room. For example, the towel reuse directions should indicate where to place towels that will be reused and those that need to be replaced. The linen reuse program can explain that bed sheets will only be changed after a certain number of days or length of stay. These programs will allow the facility to reduce water consumption, allow for more efficient housekeeping service and reduce costs.

Institute a sweep-first policy in all areas, especially outdoors: Do not use water as a first-line option for cleaning floors, patios, and walkways. Sweeping can remove the majority of debris, leaving little or no reason to mop.

Use recycled or reclaimed water to irrigate: Recycled or reclaimed water has been properly treated but not to potable standards. If available or allowed by local regulators, use reclaimed water to water lawns, shrubs, and flower beds.

Research graywater strategies (wastewater generated by laundry, dishwashing, bathing, etc.): If treated properly, gray water can be repurposed for irrigation and toilet flushing reducing the usage of potable fresh water. Graywater systems can enable up to 50 percent of wastewater to be returned to the hotel after treatment. Consider adjustable flow restrictors on taps, enabling them to deliver a lower instantons flow rate rather than screw-operated taps. This can reduce tap water use by over 50 percent.

Thaw frozen food in the refrigerator: If kitchen staff plan ahead, frozen food can be defrosted in the refrigerator instead of in the sink under running water.

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Equipment Water Conservation Best Management Practices

Use preventative maintenance schedule for water consuming equipment, such as ice machines, water heaters, dishwashers, washing machines, boilers, and chillers: Preventative maintenance schedules can increase machine efficiencies, lower costs, and can lead to lower utility costs by correcting problems before they become larger issues. Regularly check for leaks and repair any problems as soon as possible. All equipment should be placed on a preventative maintenance schedule and any necessary records kept accordingly.

Install low-flow fixtures in guest rooms, restrooms, and employee shower areas:

The following is a listing of the appropriate use rates for low-flow fixtures in the above areas:

- Low-flow faucets should use no more than 1.5 gallons per minute. Ensure all faucets have low-flow aerators.
- Low-flow showerheads should consume no more than 2.0 gallons per minute.
- Low-flow toilets should not use more than 1.6 gallons per flush.

Replace urinals in male bathrooms with waterless urinals: Waterless urinals do not contain a normal flush valve like traditional urinals. Any wastes and smells are trapped in the drain. These urinals only require some water for cleaning purposes but do not consume any during operation.

Install Dual-Flush Toilet (High-Efficiency Toilets): High volume flush (solid waste) uses 1.6 gallons of water while the low volume flush (liquid waste) uses 0.8 to 1 gallon of water per flush. A traditional toilet uses 8 gallons of water when flushing. Not only will you reduce water waste, but you will also decrease water costs.

Use low-flow, pre-rinse nozzles in kitchen and beverage areas: Low-flow nozzles should not consume more than 1.25 gallons per minute. Disable the ability to lock the nozzle in the open position. Pre-rinse nozzles are made to conserve water by automatically shutting off when not in use.

Recycle final rinse water as pre-rinse water for subsequent cycles in laundry machines: Using the final rinse water as the pre-rinse water in a subsequent cycle allows for less water consumption, decreased amounts of detergents and chemicals plus an increase in efficiency.

Use high-efficiency, low water usage machines in the kitchen, pool area, and laundry, where possible: High-efficiency machines will not only lower the water usage but can also lower the amount of energy consumption. Common examples of high-efficiency machines include counter-current dishwashers, washing machines that reuse final rinse water and any ENERGY STAR® rated appliance.