



Florida Department of Environmental Protection

Florida *Green School Designation* Best Management Practice



WATER CONSERVATION

Many believe water conservation is the biggest environmental challenge faced by Floridians. It is a precious commodity that tourism and industry depend on for economic viability. In Florida, the majority of drinking water comes from groundwater aquifers that are replenished by rainfall. Florida must average at least 53 inches of water per year to avoid drought conditions. During drought conditions, individuals as well as businesses are asked to conserve water. It is important to conserve water not only during these times, but every day as well.

Schools use tremendous amounts of water every day, require water for their heating and cooling systems, restrooms, drinking water fountains, locker rooms, cafeteria, laboratories, and outdoor playing fields and lawns. Protecting the environment by lessening the impact a school has on the environment will alleviate the impact on our natural resources, the beautiful beaches, rivers, springs and lakes.

Increasing water efficiency is one of the most significant opportunities for realizing cost savings. Many of the water-saving solutions detailed below 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 and equipment Best Management Practices (BMPs). 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

Conduct a water use assessment

Water assessments can be arranged from the local utility company or water management district. Contact the school's water utility provider to arrange for an assessment. Most assessments are offered at no charge to the customer and can be helpful in identifying 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.

Regularly track both water and wastewater usage

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 on the "bottom line" will be reduced.

Develop, commit to and publicize the school's plan to conserve water

The best plans are often those that have been soundly developed, have management, parent and student buy-in and are widely publicized to faculty and staff, students and the general public. The water conservation plan should include areas of concern, specific action-based goals and detailed plan to



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achieve success.

Remind students, faculty and staff, and guests 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 handwashing.

If your school has a community garden, water it with reclaimed water that can be caught using rain barrels

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

Install soil moisture or rain detectors on landscape irrigation systems

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

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 <http://solutionsforyourlife.ufl.edu/> 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.

Equipment Water Conservation Best Management Practices

Use preventative maintenance schedules for watering consuming equipment, such as ice machines, hot water heaters, 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 large issues. Continually 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 restrooms and 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. Add aerators to all faucets.
 - 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.



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