2.1 Introduction to Water Use Monitoring and Education

Two key factors to properly managing and reducing facility water use are actively monitoring water use and effectively educating facility staff, building occupants, employees, and visitors about facility water use and water management planning goals. Monitoring and education are critical to the success of a facility’s water management program because they provide the ability to track and measure progress, as well as increase awareness and build support for specific projects or user behavioral changes.

By routinely monitoring facility water use through existing water meters, building owners and operators can understand and manage facility water use. To monitor some specific activities more closely, some facilities install submeters on major end uses, such as irrigation systems and cooling towers. Metering allows a facility to quickly find and fix leaks or other unnecessary water use. It also has the added benefit of enabling the facility to identify cost-effective water use reduction opportunities and to track project savings.

Leaks are water wasted with no intended use or purpose; once identified, leaks should be the first area to target from a water management perspective. Unfortunately, leaks often go undetected, particularly if a facility is not routinely monitoring its water use. On average, leaks can account for more than 6 percent of a facility’s total water use. With a few simple steps, a facility can establish a comprehensive leak detection and repair program, which can save water, money, time, and expenses that would otherwise be associated with unmanaged leaks.

Once a facility has an accurate understanding of its water use and has taken steps to eliminate leaks and other unnecessary water waste, the next step is to educate building occupants, employees, and visitors about using water efficiently. Building owners and operators can raise awareness of water-efficiency efforts by communicating reduction goals to their employees, guests, and other stakeholders. Much of the water use within a facility is dependent upon user behavior and proper operation and maintenance of water-using products and equipment. Simple behavioral changes, such as taking shorter showers, running dishwashers only with full loads, or using a dual-flush toilet properly, can result in significant water savings. In addition, maintaining equipment and training staff to look for and report leaks can be a key component of a facility’s leak detection and repair program, helping to ensure the long-term water savings associated with any water-efficient products or equipment installed.

Another aspect of water use education is to understand the impact of national, state, and local codes, standards, and voluntary water-efficiency programs. In many cases, building and plumbing codes and standards establish the baseline for how buildings use water and even the types of water-using products that can be installed. Voluntary programs such as the U.S. Environmental Protection Agency’s (EPA’s)
2.1 Introduction to Water Use Monitoring and Education

WaterSense® program and EPA and the U.S. Energy Department’s ENERGY STAR® have emerged to help facilities more easily implement water-efficient practices, technologies, and products that go above and beyond the standards. Many water and energy utilities also offer rebates for water- and energy-efficient products, which can increase a project’s cost-effectiveness. Facility managers can use this document as a starting point for finding information regarding the codes, standards, voluntary programs, and product rebates in order to better manage and more strategically employ successful water-efficiency measures and practices.

Section 2: Water Use Monitoring and Education of WaterSense at Work provides specific guidance on:

- Metering and submetering
- Leak detection and repair
- User education and facility outreach
- Codes, standards, and voluntary programs for water efficiency