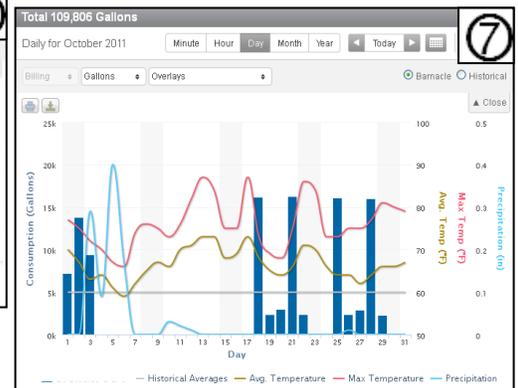
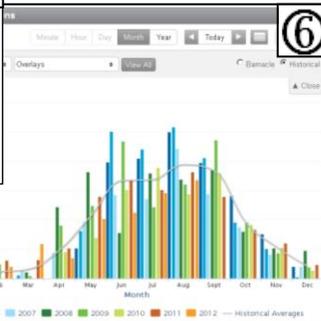
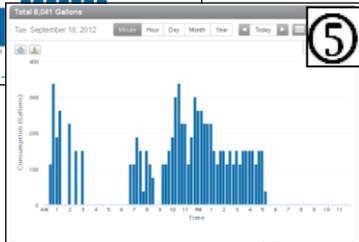
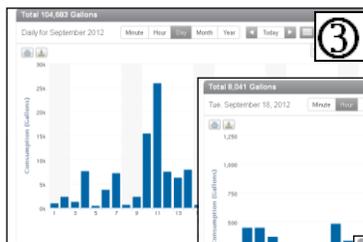
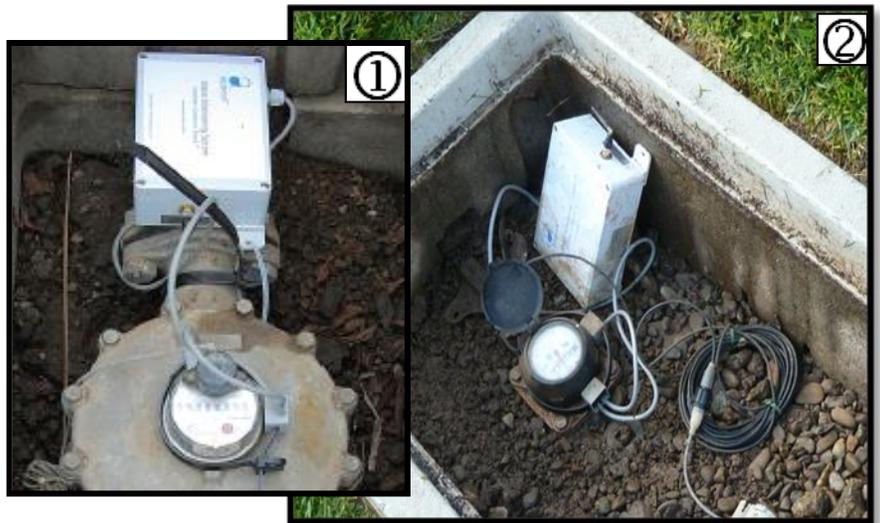


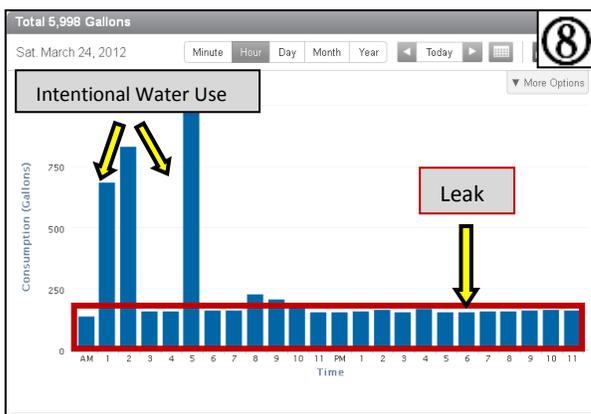
Real-Time Water Use Monitoring Fact Sheet

Stanford's Water Efficiency Program began a pilot study using real-time water monitoring technology in April 2011 and will continue it in 2013. Currently, water efficiency staff are working with Aquacue Inc. to manage over 30 monitoring devices, or Barnacles (images 1 – 2), that have been installed on existing water meters. The Barnacles detect the magnetic pulse from the water meter register when water flows through the meter. The data is then transmitted via cell network from the Barnacle to the cloud and displayed on an interactive online dashboard where customers can monitor their water use and temporal data.



One of the prime functions of the real-time monitoring software is as a leak detection tool (image 8) – leaks are visually displayed on the water use graphs as constant water use for 24 hours.

This helps building managers and landscape staff to identify and fix leaks more immediately. Users can also subscribe to receive an e-mail for real-time leak alerts. The rate of a leak (in gallons per hour) is defined as the minimum hourly volume of water used during the 24-hour period.



Stanford's Water Efficiency Program is using real-time water use monitoring at various campus locations, including on new landscape projects (Bing Concert Hall, image 9). The focus is to identify water use trends early on.