

StandardAero San Antonio, Inc.

TEEA 2014 Winner: Water Conservation



In 1999, Standard Aero, a company that repairs and overhauls engines and aircraft parts, established a facility at Kelly Air Force Base and decided that a major goal would be to reduce water usage and create a closed-loop water-recycling system that would accommodate its large cleaning and electro-finishing operations.

To achieve this goal, Standard Aero changed its processes, modified equipment, and implemented a state-of-the-art recycling and reuse system. The largest opportunity for saving water was in modifying the historic operational practice of providing constant-overflow rinse tanks for cleaning and electro-finishing operations. The redesign of these operations included consecutive rinse-bath systems, reduced-capacity tanks, quantitative and qualitative analysis of rinse baths before they are replenished, and the reuse of industrial treated water through microfiltration, carbon filtration, reverse osmosis, and evaporation technologies.

The result is a dramatic drop in water usage over the last 10 years. It is estimated that the recycling system is saving 84 percent of the water that would otherwise go into the waste stream, which equates to millions of gallons per year. Additionally, in 2010, a condensate water collection system was added to supplement water needs by collecting and storing condensate at an estimated 10,000 to 40,000 gallons per month.

The San Antonio area has experienced drought conditions over the past three years, and demand for water drawn from the Edwards Aquifer can put a strain on water availability. By conserving water and recycling it on-site, Standard Aero is lessening the burden on groundwater resources and serving as a model for other industry leaders.