The Challenge

Commercial customers make up 10 percent of SAWS customer base, while accounting for 50 percent of SAWS’ annual water use. This presents a great potential for water conservation opportunities.

The Solution

The Large-Scale Retrofit program can be adapted to fit any proposed retrofit project. This helps to provide incentives to secure water reductions in highly specialized or unique end uses found in a wide variety of commercial services and manufacturing settings.

Retrofit projects may range from dental vacuum conversions to large process water reclamation systems that cost millions of dollars. This program can be a critical factor for businesses conducting cost-benefit analysis on proposed projects.

Qualified businesses receive a rebate of up to 50 percent of the installed cost of new water-saving equipment. Actual water savings, life of the equipment and installation cost determine the rebate amount.

Upon completing the retrofit, water consumption will be reduced without affecting productivity. In many cases, productivity has actually increases. Some examples of what businesses can do to be eligible for a Large-Scale Rebate include:

- Replacing water-cooled equipment with air-cooled.
- Installing process water reclamation systems.
- Capturing air conditioning condensate for reuse.
- Eliminating water intensive phases of manufacturing.
- Modifying cooling towers.
- Upgrading industrial laundry equipment.
- Improving cleaning processes.

Case Study: Frito-Lay

In 2000, Frito-Lay undertook a series of process modifications aimed at reducing water consumption at their San Antonio plant. This extensive project was completed in 2003 at a cost of $1.4 million.

Eight individual pieces of equipment were retrofitted including spray nozzles, speed washer/air sweepers and the installation of enclosed aerator tanks to recover steam condensate.

These retrofits were evaluated based on cost and lifespan of equipment, and most importantly water savings measured as gallons per pound of product. This analysis was used to determine the amount of the rebate and provided Frito-Lay management the information they needed to evaluate the success of the project.

Based on the cost of the retrofit and the estimated water savings, Frito-Lay earned a rebate from SAWS of $264,207 for saving 43 million gallons a year.

The financial savings for Frito-Lay for one year is $138,307. Their overall water use has been reduced, even though production has increased. The production of potato chips has increased 41.3 percent, but overall water use per pound of product was reduced by 22 percent.

Should Frito-Lay close the plant or remove the equipment, SAWS will recover the rebate based on a prorated amount.

This rebate results in a cost to SAWS of $200 per acre-foot of water saved.