



Putting WaterSense® to Work

Family Dining Chain Scoops Up a Big Dip in Water Use

Sector: Restaurants and Other Commercial Kitchens; Focus: Commercial Kitchen Equipment

Project Summary

High water costs in the Pacific Northwest have made water efficiency an important strategy for restaurants in the region seeking to reduce operational costs. For Shari's Café and Pies, a 24-hour restaurant chain with 95 locations in the Pacific Northwest, implementing water-efficient equipment and practices helped reduce water use without detracting from the customer dining experience.

Working with Ecova®, an energy and sustainability management company, Shari's underwent water audits in 2010 to identify cost reduction opportunities across its locations. The audits revealed that water represented 20 percent of the company's utility costs. Using a holistic approach to implementing water efficiency measures, Shari's initially redesigned its dipper wells and installed high-efficiency equipment at all locations. The chain also found it was critical to engage employees in its water efficiency efforts. Between 2008 and 2016, Shari's reduced its annual water consumption by approximately 72 million gallons.

Redesigning Dipper Wells

During Ecova's equipment audit, dipper wells stood out as having the greatest potential for water savings. Dipper wells typically clean and sanitize utensils (e.g., ice cream scoops) between uses by flowing water continuously through a spigot into a receiving well. Each Shari's location has five dipper wells, and Ecova's audit revealed that the wells were running heated water 24 hours per day, seven days a week—wasting 8 million gallons of water per year.

To curb this water waste, Shari's began by turning the fixtures off during slow service periods and running the wells at their minimum flow rate. Shari's also replaced broken faucets that would not turn off with ball valve faucets featuring a homegrown design. To further reduce dipper well water use, Shari's assessed the feasibility of installing heated dipper wells, which sanitize utensils while removing the need for continuously flowing water. During this feasibility analysis, it was noted that staff were operating the new, heated dipper wells in the same way as the older version that required continuously flowing water. To ensure that staff at all sites did not run water continuously with the heated dipper wells, Shari's added a push-button metering faucet on the wells, so they were refilled with fresh

Highlights



- **Facility Name:** Shari's Café & Pies
- **Location:** Beaverton, Oregon (headquarters)
- **Facilities updated:** 95
- **Water savings:** 330 million gallons of water between 2008 and 2016
- **Energy savings:** 7%
- **Cost savings:** \$615,000 in annual water and sewer costs



Ecova's equipment audit identified dipper wells as having the greatest potential for water savings.

water only as needed without compromising performance. As a result, water and energy costs related to dipper wells decreased by nearly \$600,000 per year across the restaurant chain. On average, the dipper well push button and metering have helped Shari's locations reduce water use by 35 percent and natural gas use by 12 to 18 percent.

Fine-Tuning Faucets

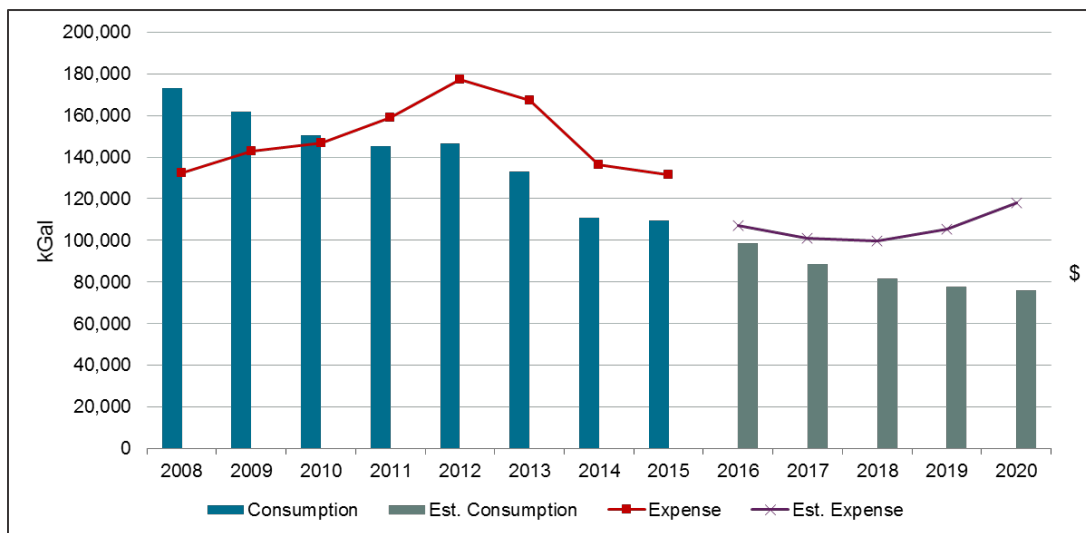
Prior to Ecova's audits, most of the 520 sinks installed throughout Shari's locations did not have faucet aerators, which increase water pressure while reducing volume when water is running. As a water-saving measure, Shari's installed water-efficient faucet aerators on all kitchen and bathroom sinks across its locations. Kitchen sink aerators provide 1.5 gallons of water per minute (gpm) and bathroom sink aerators flow between 0.5 and 1.0 gpm. The project cost just \$8.00 per faucet, but effectively saved \$300,000 per year in utility costs while reducing water consumption by approximately 5 million gallons of water per year.

Shari's took its kitchen upgrades a step further, installing WaterSense labeled pre-rinse spray valves that use just 1.15 gpm. Shari's also worked with its dishwasher rental vendor to replace existing dishwashers with ENERGY STAR® certified models, reducing dishwasher water use from 3.2 to 1.8 gallons of water per cycle, while also saving energy needed to heat the water. Shari's also installed ENERGY STAR certified ice machines. For every 100 pounds of ice produced, ENERGY STAR certified models use less than 20 gallons of water.

Savings That Last

Implementing water-efficient practices has allowed Shari's to reduce water use on average by 30 percent since 2008. Despite water and wastewater rate increases, utility expenses have remained flat because of these water efficiency efforts.

Figure 1: Water Use and Expense Summary and Projections, 2008 through 2020



Acknowledgements

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