Regional wastewater treatment plant saves money with thickening system

RIVERSIDE, Calif. – Jan. 24, 2012 – As Western strives for excellence with a primary focus of using water efficiently, the District has invested in an innovative thickening system that can change the way recycled water is produced. The Western Riverside County Regional Wastewater Authority, which Western operates and administrates as part of a Joint Powers Authority, was recently introduced to Alfa Laval Inc.’s latest sludge thickening unit, the ALDRUM Maxi Rotary Drum. The sludge thickening system aims to reduce dewatering costs by increasing its solid content and reducing the volume of free water thereby minimizing downstream processes, such as digestion and dewatering. It’s simple and efficient opposed to other sludge thickening units.

The ALDRUM aims to improve WCRWA’s purpose to provide recycled water for reuse or discharge through an outflow to the Santa Ana River. The Riverside plant had a waste thickening system number of PM 38000 decanter centrifuges, which is the industry standard. Alfa Laval allowed the plant to operate the ALDRUM for a week-long test run. The employees of the plant were impressed by the unit’s test run and noticed the ALDRUM’s thickening sludge from a concentration of 1 percent solids to 4.3 percent using nine pounds of polymer with a recovery of more than 98 percent.

ALDRUM is also energy efficient and therefore, costs less to operate. The new system operates at 3-horsepower compared to the old model, which ran at 40-horsepower.

“After the successful test run, we knew this would increase WCRWA efficiency and moved forward with the purchase,” explained Assistant General Manager Jeff Sims. “The whole system came mounted on a trailer making it accessible for the Authority to move it between the Riverside Plant and our Water Recycling Facility.”

The ALDRUM Maxi Rotary Drum now regularly runs at WCRWA at a continuous rate of 200 gallons per minute. This equipment cuts costs as it requires less maintenance then the previous thickening system as well as less water due to its noncontinuous spray bar. “It ultimately allows the plant to pump waste water more efficiently and allows and easier, better working environment for the employees,” Sims explained.