



“My facility has small staff and I needed dewatering option that didn’t require a full-time operator. The Prime Rotary Fan Press runs 24 hours without supervision.”
- Mac McDonald

CASE STUDY LANCASTER, SOUTH CAROLINA WWTP

The automation of the Prime Rotary Fan Press provides an economic solution for Lancaster WWTP

The Challenge: Facility had a small storage capacity and was facing increasing land application costs

Drying beds were not getting the job done at the Lancaster, South Carolina WWTP. This weather sensitive dewatering method was not effective in the winter months when sludge could not be land applied. Lancaster had a small storage facility that would reach capacity in 1.5 months – not enough to last through the winter season.

They were land applying six million gallons of liquid sludge annually. This process became increasingly expensive as diesel prices rose since they were transporting 1,200 trailer loads a year.

The Need: An automated dewatering system that required minimal supervision

With a small staff and future expansion that would increase intake from 5.75 MGD to 7.5 MGD, Lancaster needed a cost-effective and automated dewatering solution that did not require constant supervision or a specialized operator.

The Result: Prime Solution helped Lancaster achieve a six-month storage capacity and save thousands of dollars annually

The Prime Rotary Fan Press offered a simple dewatering solution. The system operates 24/7 with minimal supervision and is less labor intensive than the drying beds. It achieves cakes that are 16-22% solid, allowing Lancaster to store up to six months of dried cake solids.

Lancaster also achieved significant cost savings. When hauling liquid sludge for land application, Lancaster paid 3.5 cents per gallon. To haul cake solids from the facility, Lancaster paid \$22 per cubic yard. This saved the facility thousands of dollars annually.