



# SCREENTEC

THE PUMP STATION BAR SCREEN  
Pump Station Sun City, Arizona

## Case Study: How EPCOR Water Solved Sun City Pump Station's Non-Dispersibles Problem

It was the 1970's. Fat neckties, leisure suits, and wide collars abounded, and pensioners flocked in droves to escape harsh Midwestern weather in favor of Arizona's mild winter climate. Sun City grew like wildfire, and its infrastructure soon caught up, including a new wastewater treatment plant.

Fast-forward forty years. The bad fashion of the 70's is now a thing of the past, and Sun City continues to grow and thrive as Baby Boomers retire by the millions.

"Cleaning the old lift station screen from debris was very awkward and unsafe." We were looking for a solution that was cost-effective, and would fit into our narrow and deep existing pump station."

But the city still has the same wastewater treatment plant, along with a new, expensive problem: non-dispersible waste. Disposable baby wipes, personal hygiene products, and disinfectant wipes account for \$12B in annual consumer sales worldwide. They're convenient, strong, and effective, but they don't decompose in the wastewater stream. They foul and damage wastewater equipment, and pump stations



Pump Station before Screentec



Pump Station with Screentec

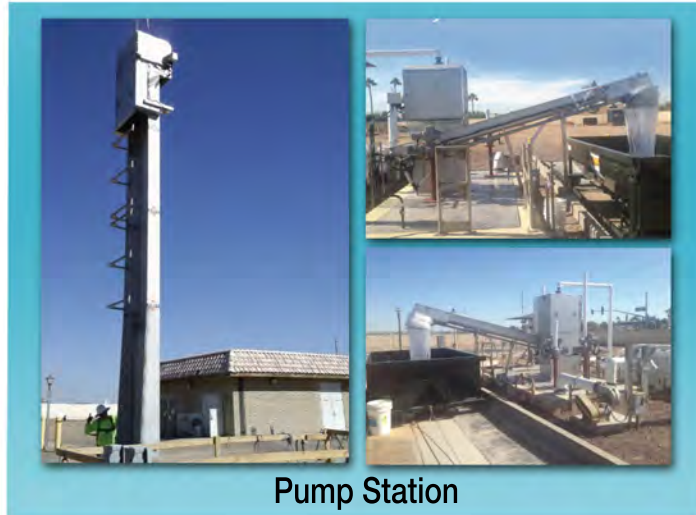
"What we had in the Sun City Lift Station was very antiquated screening technology, installed in the late 1970s," said Douglas Griffith, Operations Manager with EPCOR Water. "The upstream coarse 2-inch screen was very inefficient, letting just about everything through that was smaller than a bed sheet or a towel.

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Screening Equipment

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Pump Station

The screen was not designed to deal with a high volume of non-dispersibles that the lift station was experiencing. Consequently, the pumps pushed most of this non-dispersible debris to the plant several miles away, where much of that ended up weaving itself into big masses of material that would jam the plant pumps and mixers. It was costly.”

Sun City’s existing screen also required manual cleaning, an operation that required two workers to climb down a steep, damp, dark shaft over 30 feet deep, remove debris from the screen by hand, and haul the waste material up to the surface. “Cleaning the lift station screen was very awkward and unsafe,” Griffith said.

EPCOR needed to make a change. “We were looking for a solution that was cost-effective,” Griffith said. “And something that would fit into our narrow existing channel.”

Enter Screentec™, the simple, rugged, and innovative non-dispersible screening solution from Aqualitec. Screentec’s half-inch screen removes 75% of non-dispersible wastewater debris before it reaches lift station pumps, and its automatic rake hauls debris to the surface for easy disposal. Screentec has no moving parts below grade and requires minimal maintenance. Its unique 90 degree installation easily fits existing wastewater flow configurations with minimal alteration.

Aqualitec’s non-dispersible debris screening solution has been so effective in the Sun City pump station application that EPCOR plans to replace its 250hp slurry pumps with equipment half that size. The extra pumping capacity is simply no longer needed, because the wastewater stream is so much cleaner.

**75% Solids Reduction at the plant**

“We stopped a lot of that [non-dispersible] material from meandering through the plant and ultimately taking out equipment,” Griffith says. “We also protected the pumps at the lift station, keeping any heavy debris from getting through.”

