

# Lift Stations: "New Sewage" needs new solutions

Disposable, throw-away products are making raw sewage pumping tougher than ever.

*By Glenn Dorsch, P.E, VP/Chief Engineer, Vaughan Co. Inc.*



Once a week is too often to be unplugging sewage pumps, especially when the pump station is 43 ft. below a major street in Palm Springs, CA. The high maintenance and overtime costs were getting out of hand and the city needed a cost-effective solution.

The original non-clog pumps had provided acceptable service when they had been installed years earlier. But the changing nature of today's sewage, carrying ever increasing amounts of debris such as disposable floor wipes, baby wipes, and shop towels has rendered these non-clog pumps ineffective. The clogging problems generated way too many high-level alarms and overflow emergencies.



*1 of 2 non-clog pumps originally installed*

Veolia Water operates the City of Palm Springs treatment plant and collection systems. Veolia's Doug Loar, after contacting Vaughan's California Sales Representative, Rockwell Engineering & Equipment, then worked directly with Vaughan Co.'s Engineering Department to find the easiest way to make the piping transitions from the old non-clog pumps to Vaughan E-Series pedestal chopper pumps in the tight space.

The improved efficiency of Vaughan's chopper pumps allowed replacement of the original pumps with equal power chopper pumps.

Vaughan Co. and the City of Palm Springs have a positive history going back more than a dozen years with more than a dozen different, successful chopper pump installations. So Veolia had good confidence that the Vaughan chopper pumps would solve the plugging problems in the Mesquite Ave. Pump Station. To make installation easier, Vaughan Co. custom manufactured a couple of ductile iron spool pieces for the suction side of each pump. The 2, 15 HP, 800 GPM Vaughan 6" discharge vertical pedestal chopper pumps use Vaughan's flushless, cartridge mechanical seal, eliminating the old seal water flush.



*1 of 2 Vaughan Chopper Pumps now installed*

The pumps were installed in early May, 2010 and have operated flawlessly since startup. Veolia's long-running battle with the original non-clogs at this pump station is finally over. Three other problem pump stations in Palm Springs are to be converted to Vaughan chopper pumps in the near future.

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