

How to Get a 1-Year Payback on Retrofit Chopper Pumps for Your Packaged Lift Station

Wipes, Swiffers, and plastics deposited in the incoming lines and then broke loose in storms to overwhelm the old non-clog pumps.

Jim Wilson, Vaughan's longtime local sales representative in northern Indiana, was reading the newspaper one morning and discovered an article about major maintenance problems at Independence Hill Conservancy District's Taney Lift Station. The District had been spending too much money to keep the non-clog pumps in this packaged lift station unplugged. Jim Wilson knew he had an answer, so he went to the District meeting to offer a solution. He suggested that he could provide 3, guaranteed-to-work Vaughan chopper pumps for about the cost of one year's maintenance. The alternative was a \$1/4 Million screening and grinding system with no performance guarantee.

Brian Smolar, chief operator for the district noted, "Wipes, Swiffers, and other plastics would settle out in the lines to the station and then during a storm surge settled debris would break loose and overwhelm and plug the existing pumps. The problems have gotten much worse since about year 2000. We often had plugging 2 or 3 times per week." The unplugging had been resolved by an outside maintenance organization at a cost of \$45-48,000 per year over the last 10 years.



2 of 3 retrofit Vaughan pedestal chopper pumps.

1 of 3 Vaughan Chopper Pumps now installed at the IHCD Taney Lift Station.



The original non-clog pumps were powered by 15 HP motors, but since the District wanted to increase the station capacity, new chopper pumps were proposed in May 2009 with larger, 20 HP motors to produce more flow, 750 US GPM at 47 ft of Total Head. The District placed the order for 3, model PE4P6CS pedestal chopper pumps in Sept 2009, and an engineering submittal was provided within 2 days. The completed pumps and new motors were shipped in Nov 2009 and were installed and started up by a local contractor by Dec 2009. The total installed cost was about \$58,000.

The conclusion of all this effort more than one year after startup of the retrofitted Vaughan chopper pumps is that Independence Hill Conservancy District no longer needs the services of the outside maintenance company at this lift station. Brian Smolar commented, "We already made our money back on this investment even if these 3 Vaughan pumps were to blow up right now. This investment made by the Independence Hill Conservancy District is likely to save its taxpayers hundreds of thousands of dollars in the long run."

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