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Bedford Pumps upgrade Ashton Avenue for Wessex Water

Bedford Pumps Case Study

Bedford Pumps Ltd has contributed to an extensive refurbishment for Ashton Avenue Sewage Pumping Station, one of Wessex Water's largest and most critical pumping stations in the Bristol region.

The station was originally commissioned in 1970 and was targeted for renovation by Wessex Water due to pressure put upon the site by a rising population. This resulted in unsatisfactory intermittent discharges of diluted sewage from the sewerage network occurring during and after heavy rainfall.

£9.5m has been spent on upgrading Ashton Avenue and reducing the risk of flooding in South Bristol. During times of heavy rainfall a greater amount of stormwater can now be safely taken away from homes in the area.

Bedford Pumps manufactured and installed three Storm Pumps and two Dry Weather Flow (DWF) pumps for Ashton Avenue and also refurbished three of the existing DWF pumps previously installed by Bedford Pumps back in 1994. One of the new DWF pumps replaces the original W H Allen pump from when the station was first constructed. W H Allen, were the company that facilitated the existence of Bedford Pumps. BPL was founded in 1987 by members of the former Pump Department at NEI (W H Allen) after the company closed their manufacturing plant within the town.

Bedford Pumps worked in close collaboration with the main contractor and Wessex Water to undertake the refurbishment of the DWF pumps. The DWF pumps serve to lift the foul sewage up into the Southern Foul Water Interceptor for

onward flow to Avonmouth STW for treatment. They are each required to pump up to 650 l/s with a guaranteed head of 6.4m.

The three new Storm Pumps are Mixed-Flow Canister Pumps with submerged motors. Each pump is rated at 2,625 l/s at a total head of 11.8m, 440 kW, complete with Variable Speed Drives. They replace the original Storm Pumps from 1970 which were shaft-driven, axial flow with the motors at ground level.

Bedford Pumps also supplied Pump Condition Monitors and Canisters for the Storm Pumps. Air release valves are included on the top of each canister and Bedford Pumps innovative "latch lift" system ensures speed, efficiency and cost savings when accessing the pumps.

Mark Lloyds, Project Manager for Wessex Water stated that "During the design stage of the scheme it became apparent that Bedford Pumps were one of only two likely suppliers for these pumps. Being a proven manufacturer of large pumps and the supplier of the original pumps gave Bedford Pumps additional credibility and they were selected through a competitive tender process."

"Bedford Pumps worked closely with B&V on the integrated design and it has proven to be a successful contract all round."

Bedford Pumps are delighted to have been part of such a worthy project which was completed ahead of schedule and under the original budget.



Bedford Pumps' Storm Pump for Ashton Avenue



Installation process using BPL's "latch lift" system