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## Bedford Pumps supply Bedford's pumps

# Bedford Pumps Case Study

Bedford Pumps Ltd is nearing completion of a £500,000 contract with main contractor VolkerStevin to design, supply and install seven pumps to Bedford Pumping Station in Leigh, Greater Manchester.

Bedford Pumping Station was constructed in 1943 after mining subsidence led to flooding in the area. The pumping station was commissioned in 1964 and fitted with pumps manufactured by Bedford Pumps' predecessor, Gwynnes Pumps. Gwynnes was acquired by W H Allens in 1961, becoming Allen Gwynne pumps with a worldwide reputation for high quality pumping plant. Bedford Pumps was formed by former members of W H Allens when the company closed its Pump Department within the town. 25 years on Bedford Pumps is now considered the UK's leading manufacturer of large submersible and conventional pumps for the Land Drainage industry.

Before the refurbishment, Bedford Pumping Station had been operating with seven of Gwynne's submersible wet well suspended bowl pumps, but as the capacity of the Bedford Basin is relatively small the station was receiving significantly more flow than it could pump. The refurbishment of the station is part of a £2.0m flood defence scheme funded by the Environment Agency and will contribute towards enhanced flood protection to 105 properties, whilst maintaining the standard of protection to a further 670.

Bedford Pumps is installing seven pumps in total for Volker-Stevin as part of the Environment Agency contract; three large Storm pumps, two medium Storm pumps and two DWF (Dry Weather Flow) pumps. As per the contract terms, the pumps have been designed to utilise the existing pipework at the station, but the existing pumps, motors and spindles will be removed and decommissioned. The maximum total flow for the pumping station is limited to 9,400 litres per second which will be achieved by a sequencing of the pumps at storm levels. The largest Storm pump, a Submersible Canister design will operate at 2,300 l/s at 6.8m head via a 240kW 8 pole motor. The slighter smaller Storms supply 1,400 l/s at 7.03 with a 130kW 10 pole motor.

The DWF pumps provide a duty of 350 l/s at 7.76m head and are designed to be hydraulically, mechanically and electrically interchangeable with the DWF pumps that BPL manufactured for Liverpool's largest pumping station, Altmouth, in 2011. Altmouth P.S. was a landmark job for the Environment Agency and has been proven to reduce the risk of flooding to more than 9000 properties and provides protection to approximately 20 square miles of grade A agricultural land.

Bedford Pumps is delighted to be working with main contractor, VolkerStevin, to upgrade Bedford P.S. for the Environment Agency and anticipate completion by the end of 2013.



*Allen Gwynne name plate*



*Original pumps from Allen Gwynnes*



*Bedford Pumps replacement pumpsets*