

CASE STUDY

Foul & Storm Pumps for Irish Water



Application Description & Storm Assessment

The DPS Technical team were approached by a primary site operator for Irish Water and asked if we could provide an assessment and solution for you of their large terminal pumping stations. This particular location in Co. Louth, is a combined foul and storm facility and although the primary requirement was to upgrade the storm pump, there was also a wish to increase the forward feed volume on the foul system to 1400m³/h.

After initial consultation, the DPS Technical Manager visited the site to make a thorough assessment. The original KSB vertical turbine storm pump, that had been installed in the 1970's, was now being required to pump through a significantly elongated system, due to site modifications. It could no longer facilitate the actual duty required, nor handle the modern debris experienced in waste water handling.

Project Overview

Client Name

- › Ballygrainey Nurseries
McMillan Construction

Supply Date

- › July 2017

Reference Contact

- › Morris Crawford

Value of Project

- › £4,000.00

Further Foul System Assessment and Solution

The DPS technical staff also undertook a further assessment of the foul pumps, to enable an increase from 1050m³/h to 1400m³/h, to be fed forward to the local waste water treatment works. After calculation and selection, a suitable proposal of 2 no KSB KRT E200-401 75kW dry well submersible jacketed pumps was made.

This was presented to the operator's client, highlighting the enhanced solids handling capacity of 121mm and sustainable efficiency on a single channel hydraulic, against the currently installed Flygt N hydraulic pumps. The existing pumps had been prone to blockage and wear incursion, as well as falling short of the client's flow requirements to treatment.

We are happy to report that the pumps were supplied, installed and commissioned successfully with an enhanced control philosophy, in August 2016 and have operated blockage free for the last 6 months. 2 pumps operating in parallel have achieved flows up to 1434m³/h. The client is delighted with the outcome of this project and has ensured that they can facilitate both current and future treatment requirements that may be required.

The client wanted to be able to transfer 3000m³/h of storm water, to a culvert 400m away.

After calculations from the site review, a new KSB KRT K400-500 submersible pump with a 225kW motor was proposed, supplied and installed by DPS on site and then commissioned successfully with a new panel and variable speed drive.

