

CASE STUDY

Moylough - Kilkerrin WTP



Process Description & Equipment Supplied

Galway Co Co identified a requirement for additional pumping capacity at their Moylough Site. To achieve this they determined that a pump station upgrade was required to complement the existing asset on-site and the addition of new cryptosporidium filters on the rising main between Moylough and Kilkerrin.

DPS were involved at an early stage in the project feasibility and provided design and selection services for the ultimate pumping solution and arrangement. DPS's scope involved design, supply, installation and commissioning (full MEICA) of 2 no. KSB Etabloc close coupled end suction pumps (WIMES 1.15 compliant) complete with discharge manifold assembly, controls, flow meters, PID and remote monitoring system. The installation included for suitably designed pipework which adapted for the pumps and new filters on site.

Project Overview

Client Name

Irish Water
Galway County Council

Completion Date

September 2014

Reference Contact

Brendan McDonagh
Galway County Council
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Value of Project

€35,000.00



Design Involvement

DPS worked with the Galway County Council design team to produce a suitable hydraulic design for this site. This included working with the Galway County Council Engineers on site to produce an accurate Pressure Drop value for the filtration skids.

Once we had accurate figures for the filtration system we were able to accurately select pumps to provide optimum hydraulic efficiency across a range of pressures to cover various reservoir levels and filtration conditions. The pump selection also took consideration of the suction lift requirement at Moylough. Attention to detail during the hydraulic design stage enabled us to make a functional selection while paying attention to the efficiency and Whole Life Costs of the pumping system proposed.

This relationship was key to ensuring a coherent solution that would allow site optimisation for both efficiency and ease of access for future maintenance in order to drive down Whole Life Cycle costs of the asset.

A priority objective on this project was early contractor involvement and engagement at design stage, which ensured the correct collaborative model and approach.



Ensuring Equipment Installation to OEM Specification

DPS was responsible for the installation of the pumping equipment on site. To ensure installation to OEM specification our team worked with the OEM (KSB) supplier from the design stage to ensure that the bespoke design would work effectively with the pump hydraulic. To this end the DPS design was signed off by KSB as suitable for use. Prior to installation on site an installation plan was developed by DPS based on the OEM installation instructions and the requirements for the site. Once compliance had been confirmed the units were installed, in addition to the MCC, pressure sensors and associated pipework valves and fittings.

Ensuring Equipment Commissioned to OEM Specification

A key component of our value offering on this project was to ensure that the installed pumping assets were commissioned and put into operation as efficiently as possible. DPS coordinated this phase of the project collaborating with our client Monaghan County Council and their Client AFBNI, their engineering team and our OEM partner which ultimately ensured a positive commissioning phase outcome for the project. Our upfront agreed installation and commissioning plan ensured that all stakeholders were fully aware of our approach and expectations for all involved were managed adequately.

Process for managing relationship with customers delivery team

Having progressed from working with the design team to the supply and installation phase, DPS nominated a Project Manager who was the point of contact for Irish water and all other contractors on site and was responsible for all communications from DPS to Irish Water and the project stakeholders.

The Project Manager was responsible for progress reporting to allow 'live' updating of the program schedule. The Project Manager was also responsible for the reports which, in addition to monitoring the schedule and milestone achievements, covered issues such as Health and Safety, Quality and Risks. The outputs of the daily and monthly project meetings were subsequently communicated to the DPS installation team and the OEM as required. The Project Manager was responsible for amending and implementing any changes required to the DPS Health & Safety or quality procedures while amending the delivery and installation schedule as necessary to ensure compliance with the delivery team requirements.

Process for handing over 'fit for purpose' equipment free from defect

Having installed and commissioned the equipment on site as per the OEM requirements and in conjunction with the project stakeholders, DPS then 'snagged' the site prior to handover to ensure there were no minor issues outstanding. Once the snagging process was complete, DPS then installed a remote monitoring system on site to allow logging of the pump performance and any alarm events on site. This would allow DPS to have 24 hour awareness of how the pumps were performing and to observe and correct any issues that came to light. This extended commissioning phase support approach from DPS ensured a successful closure to the delivery phase of the project. This enable the final sign-off and close-out of the project.

