



## CAVAN WASTEWATER TREATMENT PLANT

MCC Replacement

**Client: Cavan County Council**

### SUMMARY:

**Value:** €200,000

**Electrical Contractor:** Gilmore Clarke Electrical

**Status:** Complete

### Services Provided:

Detailed M&E specification for new MCC

Project supervision and management

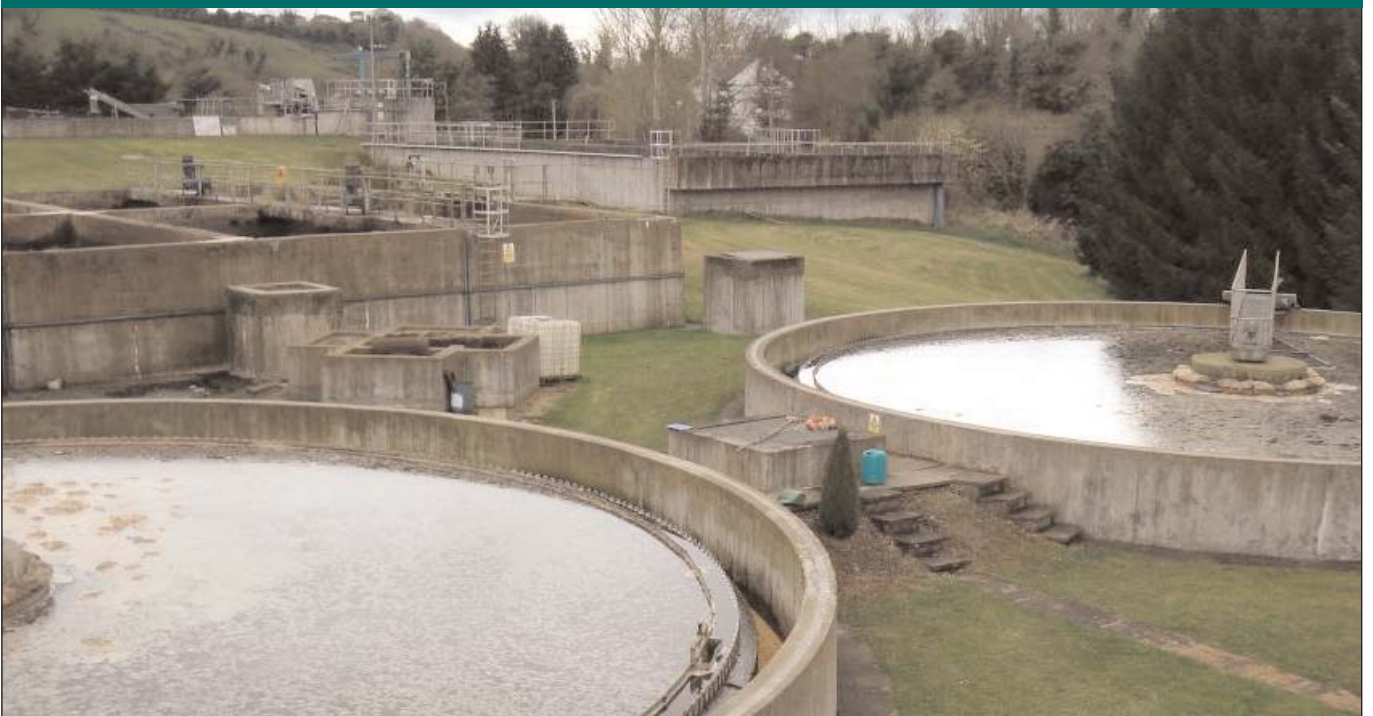
Process Improvement and Optimisation

Energy Management and Conservation Techniques

Nicholas O'Dwyer were appointed as Project Supervisors by Cavan County Council for the replacement of the Main Control Centre at the wastewater treatment plant which was damaged by a fire. Having already had an involvement in providing process control assistance to the council with regard to the operation of the treatment plant, the replacement of the MCC provided an opportunity to develop a new control strategy for the treatment plant which would optimise the process performance and reduce energy consumption by greater integration between process control units.

The main elements of the work included the following:

- Detailed electrical design specification for new intelligent MCC with focus on reducing energy consumption
- Provision of VSD controlled motors on large pumps and aerators to improve efficiency of operation
- Complete review of Control Philosophy to provide greater flexibility with regard to process control
- Installation of additional mechanical equipment and instrumentation.
- Provision of specification requirements for SCADA and HMI control systems to allow for greater automation and flexibility of process specific tasks and functions
- Provision of additional process control and maintenance procedures for effective operation of plant.
- Provision of energy control and optimisation of individual plant components in line with the daily demands of the influent and its load characteristics
- Provision of energy control and optimisation to include individual and time specific selection for all plant drives.
- Reviewing and optimizing the hydraulic operation and efficiency of pumping systems



**Nicholas O'Dwyer**  
CONSULTING ENGINEERS