



# MONASTEREVIN WASTEWATER TREATMENT WORKS

Wastewater Treatment Works for the Town of Monasterevin, Co. Kildare

**Client: Kildare County Council**

## SUMMARY:

**Value:** €11 million  
**Status:** Complete

## Services Provided:

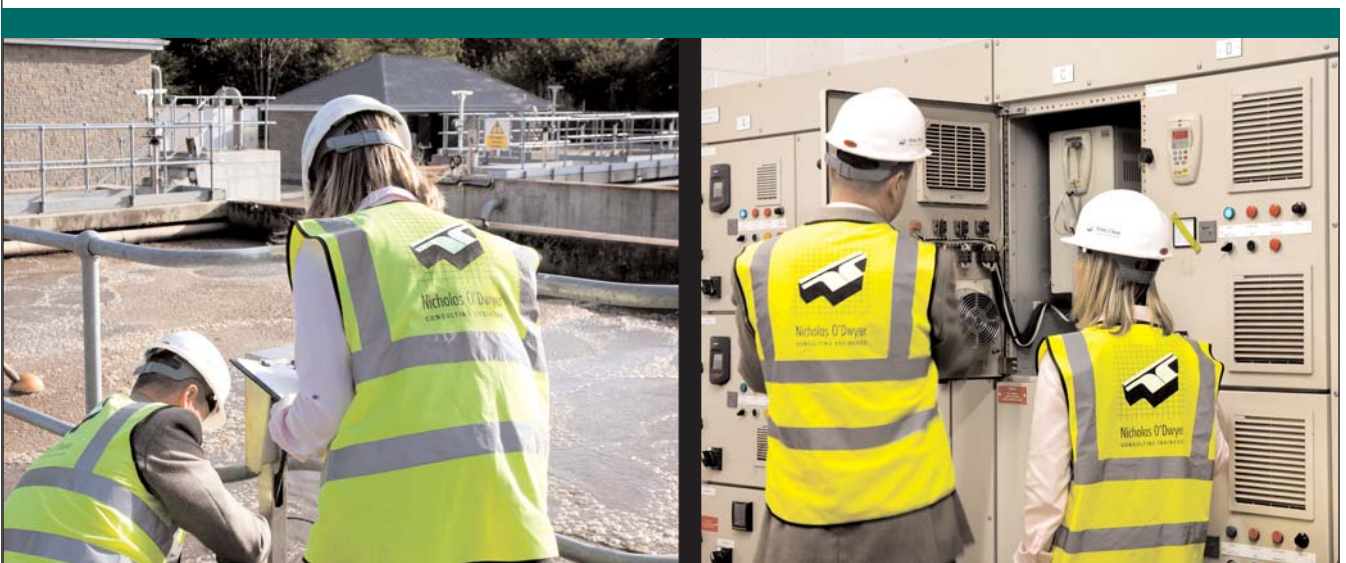
Preliminary Report  
Detailed Design  
Management of Tender Process and Evaluation  
Construction Services  
Project Supervisor Design Stage (PSDS)

The town of Monasterevin was served by an overloaded Imhoff tank discharging partially treated effluent to the River Barrow. As a result of the inappropriate treatment and the population growth in Monasterevin it was necessary to construct a new Wastewater Treatment Plant (WwTP) to cater for a population equivalent of 9,000 with an effluent standard of BOD 15mg/l, Suspended Solids 25mg/l, Total Phosphorus 1mg/l, Ammonia 5mg/l and Nitrate 10mg/l. The new treatment plant discharges to the River Barrow and is designed to deal with stormwater.

Also included in the scheme was the construction of approximately 5km of foul gravity sewers ranging in size from 150mm to 450mm diameter, the refurbishment of an existing pumping station and the construction of a new pumping station with an associated rising main. These improvements were required to relieve and expand the existing network.

The new WwTP provides the full treatment of flows up to 2.5 DWF using a biological nutrient removal process followed by clarification. The aeration tanks incorporate anoxic tanks for nitrification / denitrification purposes and upstream of this tank there is an anaerobic tank for the biological phosphorus removal.

The storage of a further 5.5 DWF in stormwater tanks can be facilitated with the flows subsequently being returned for full treatment. Sludge amenities on site include a picket fence, thickening tanks and dewatering facilities. The site levels were raised to ensure that the site was above the historical flood levels recorded on the Barrow at Monasterevin. The site was also carefully landscaped with mature indigenous plants and trees to disguise its location in a forested area in the town.



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CONSULTING ENGINEERS