

## Martin Quigley

### Clocking up the miles to ensure water services run smoothly



Enniskillen might be home, but Chartered Engineer Martin Quigley is probably more familiar with the highways and byways of County Cavan.

As part of the local authority's Water Services team, he's responsible for the day to day operations of the county's 21 water and wastewater treatment plants and never knows where the day will take him.

"Our work involves compliance, operations and capital upgrades. I'm in constant contact with the plant caretakers and in the morning, I could get a call, text or email informing me of an issue in a plant anywhere in the county."

Martin's role marries engineering and science. Working closely with Irish Water's compliance engineers and process optimisation specialists, he knows how important it is to identify problems and escalate issues as quickly as possible to ensure a safe and reliable water supply for the people of Cavan.

"The science behind treating wastewater into a product that can be discharged safely back to the nearby water courses is delicately balanced and relies almost entirely on natural processes. As an Operations Engineer, it is important that treatment plants do not become over or under loaded and the optimum conditions for these biological processes to occur are maintained."

"In the treatment of source water to produce a water that is fit for human consumption, it is first important to know the constituents of the ever-changing raw water. Daily onsite laboratory testing at the water treatment plants give us the information to determine the level of treatment that is required and any adjustments that needs to be made."

"We have received incident response training and inform Irish Water of issues at the earliest opportunity. That triggers a sequence of events. It's better to report an issue if there's any concern at all and find out later that it wasn't a problem."

Martin's work on some of the largest and most complex projects in Europe has allowed him to gather multidisciplinary experience transferable to any task but little did he know of the adventures that awaited him when he crossed the Irish Sea in 2014 for work.

With a master's degree in civil engineering from Queen's University on his CV, tunnelling work on the Crossrail Project under the Thames proved an exciting first assignment. But then he got his first taste of water and wastewater infrastructure on a £240m upgrade of the Deephams Wastewater Treatment Plant and was instantly drawn to the sector. As the Senior Engineer for the design and

build contractor, Martin led a team of civil engineers and supervised more than 200 site personnel on one of the largest wastewater treatment plants in the UK.

“I delivered the process tanks and surrounding infrastructure, incorporating isolation of the existing works, demolition, groundworks, reinforced concrete structures, mechanical and electrical install and eventually assisting in the commissioning process. All works were carried out while keeping the adjacent works fully operational.”

Home was never far from his mind and in 2017 he returned to Irish soil to take up a role on a major natural gas project.

Working within the water and wastewater sector remained “high up the priority list” and inevitably, with his experience, it wasn’t long before he had secured work on a landmark project – the new Stillorgan Reservoir in Dublin.

He’s understandably proud of his role as Senior Project Engineer with the design and build contractor, Murphy International Ltd, in bringing the project to fruition. The Stillorgan reservoir was one of the last remaining uncovered treated water reservoirs in Europe where treated water was left exposed to the element with risk of contamination. However, the new infrastructure now means more than 200,000 Dubliners are enjoying a much safer and more reliable water supply.

“Working on a major project in Ireland give me a great sense of pride, especially on a project with the significance of Stillorgan Reservoir to the people of Greater Dublin. As an Engineer, projects that improve people’s lives have an added degree of satisfaction. The complexity of Stillorgan reservoir, its location, its 150-year history and the strategic importance to Irish Water in securing a water supply to the people of South Dublin is the type of project that any ambitious Civil Engineer would be keen to be involved in.”

Then at the beginning of the Covid 19 pandemic came the opportunity to work with a local authority and put his experience in water and wastewater treatment plants to use and Martin took on the role as Operations Engineer with Cavan County Council’s Water Services team.

He admits “getting to know colleagues on online platforms proved challenging” but as an essential worker, he was lucky enough to travel the county helping plant caretakers overcome any problems that arose.

18 months later he is continuing to familiarise himself with Cavan’s towns and villages but as someone who is constructing a home himself, he’s delighted to see Irish Water investing in water and wastewater infrastructure in the county.

“In Cavan alone there are big plans for housing and it’s great to see that Irish Water is staying out in front of that development by upgrading the utility’s assets to meet the increasing demand.”