

Teresa Burke – Environmental Scientist

Clonoulty's own looking after our drinking water and wastewater



Irish Water is Ireland's national regulated water utility and is responsible for providing water and wastewater services throughout Ireland. Their scientists help contribute to their mission, which is to ensure all customers receive a clean, safe, and reliable supply of drinking water and have their wastewater collected and safely returned to the environment.

Teresa Burke is an Environmental Scientist and is part of the Environmental Regulation Wastewater Compliance Team within Irish Water. Her team is responsible for the governance of Irish Waters drinking water and wastewater

The Wastewater Compliance team ensures the sampling, monitoring and all statutory and non-statutory reporting requirements are fulfilled. They protect the health and well-being of the people of Ireland and protect the environment in all their activities.

As part of Science Week, Irish Water will be showcasing some of its scientists who strive to make our water and wastewater services safer for everyone. They will also be discussing their science path, how they use it at work, and give a few tips for anyone interested in pursuing a career in the science field.

Where are you from?

I am from Clonoulty, Co. Tipperary. I grew up, went to school, and recently bought a house in Clonoulty. I also play camogie with Clonoulty Rossmore and have been involved in the camogie and following the GAA in the parish for as long as I can remember!

What do you do with Irish Water?

I am a Wastewater Compliance Analyst. I ensure that all sampling, monitoring, and reporting requirements are fulfilled as set down in the Wastewater Discharge Licences that are issued by the Environmental Protection Agency (EPA). This includes managing monthly compliance monitoring results from each wastewater treatment plant, assisting with complaint management, and reporting of any incidents that may occur at wastewater treatment plants, pumping stations and the network to the EPA as our regulator. I also attend enforcement and sampling audits at our wastewater treatment plants with the EPA. It is a highly reactive role, challenging and very fulfilling.

Tell us about your career to date?

I completed a Master of Science in Environmental Resource Management at the University College Dublin in 2016. I began working with Irish Water in 2017 and I joined the Irish Water Technical Graduate program later that year. The graduate program was a good opportunity to work in various sections of the business and I spent time working in Connections and Developers Services, Asset Operations and Environmental Regulation. I started working in my current role in 2020 and have been the Wastewater Compliance Analyst for counties in the South- West of the country since then.

Why did you choose science as a career?

I always had an interest in nature, the outdoors and protecting the local environment. In school, my favourite subjects were geography and biology, so it felt natural for me to go down this road. I wasn't sure initially what area I wanted to pursue but once I started working in the water industry, I never looked back.

What's your favourite thing about working as a scientist?

As an Environmental Scientist, you get the opportunity to work in a huge range of areas from energy, waste, circular economy and ecology to climate action. I enjoy the mix of office/site work and getting to work with people from different sections of the business and the many different stakeholders to achieve the same end goal.

The best part of your job with Irish Water?

Irish Water has a vital role in Irish society. To provide clean safe drinking water and treat wastewater and return it to the environment safely. Our role is to protect the health and well-being of the Irish people and support economic growth. To do all of this sustainably makes for a hugely challenging career.

My role is important in that, I am responsible for assisting the local authority in complying with the conditions of their Wastewater Discharge and Certificate of Authorisation licenses. This means working closely with different teams and stakeholders and our common goal is to ensure our wastewater treatment plants do not cause harm to our waterways or natural environment.

Who's your hero in the field of science and why?

I am a big fan of Luke O'Neill; I admire his passion for using science in our everyday lives. He is an immunologist, so during the pandemic he was a trusted voice for so many. He has a very straightforward approach to everything which is even evident in his latest book "Keep calm and trust the science".

Outside of work, what do you enjoy doing?

I play camogie with Clonoulty Rossmore. There are over 40 girls from the parish involved in the team so there is great comradeship and always good craic at training. We had a great year this year, winning the junior B2 county final and reaching the senior county final. Unfortunately, we were pipped at the post in the senior final but we have a strong panel and will be back again! I also enjoy hiking. The Devils Bit and Slievenamon would be some of my favourite hikes and they have great views of the county from the top. Other than that, I am kept busy helping out on the family farm as there are always jobs to be done!

How can I be more sustainable with water?

Irish Water put a big focus on the "Think Before You Flush" campaign, where we work with An Taisce to educate people on why pee, paper and poo are the only things that should go down the toilet. Everything else should go in the bin. Every year we remove tons of wet wipes, beauty products and other household items that should never be flushed down the toilet. Flushing these items can cause sewer blockages, resulting in possible flooding to homes and businesses, and risk of polluting the environment and harming wildlife.

How can I be more sustainable?

I think small things in the home can make a big difference, like recycling and reducing food waste can save money and is positive for the environment. Saving water in the home is a big one for me, and I am conscious of time spent in the shower, brushing my teeth and when washing up – especially during periods of very dry weather when water supplies may be under pressure. There are great tips and advice on Irish Water's website <https://www.water.ie/conservation/>

Your advice for anyone interested in a career in science?

I think the opportunities available these days are amazing and a role in science can offer so many options and variety. There is always a new challenge and a new problem to be solved, and this makes every day interesting. For anyone thinking of a career like mine, I would highly recommend having a look at the documentary we made a few years ago, [The Story of Water](#). It gives a great insight into what we do, and how we all need to play our part in protecting our most precious resource – water.