

7. Dungannon WwTW – Application of Nereda® Technology



Situation

Set in the heart of an agri food hub, Dungannon WwTW receives over 60% of its influent from agri food traders. To treat difficult, high strength influent effectively and to serve these vital business customers in a way that protects the natural environment required the installing of a state-of-the-art treatment process known as Nereda®.

Action

The Dungannon Wastewater Treatment Works received a £6.5million investment to install a Nereda® process in 2018/19. This technology places the plant at the forefront of world-class industry innovation, offering a low-energy solution for the treatment of both domestic and industrial wastewater. The investment – which forms the first phase in a wider programme of improvements planned for Dungannon WwTW – extended the existing works to meet the current demand and maintain regulatory compliance.

Its application is well suited to Dungannon as it allows delivery of a high quality effluent but only required a quarter of the space of traditional wastewater treatment solutions, meaning that it was installed without NI Water needing to purchase additional land. The addition of this process at Dungannon means that the works can cope with increasing current demand and maintain regulatory compliance.

What's involved in the first phase of work?



The diagram on the left shows the existing layout of the WwTW (NIW land ownership outlined in blue) with the new Nereda® process being installed to the north of the site (marked in colour).

Results

The new Nereda® process is fully commissioned and operating successfully, NI Water is now embarking on a second phase of works to replace the old treatment units, which have been in operation since the early 1990s and are nearing the end of their service life.

Northern Ireland Water's General Counsel and Company Secretary, Mark Ellesmere, NI Water CEO, Sara Venning, with DfI Deputy Secretary, Julie Thompson, on a tour of the upgraded Dungannon Wastewater Treatment Works (WwTW).

