



Aquamonitrix[®] is now analysing in the activated sludge zone to help minimise nitrous oxide (N₂O) emissions from biological nitrogen removal in wastewater treatment plants.

Supplementing conventional dissolved oxygen (DO) control with real-time nitrite- and nitrate monitoring and process control could be an important game-changer in reducing emissions of the potent greenhouse gas nitrous oxide from wastewater treatment, helping the water industry worldwide to achieve net-zero targets.

A unique solution

Aquamonitrix[®] provides a unique solution for nitrate and nitrite monitoring and process control in nitrification and denitrification processes. This is due to its unrivalled ability to reliably measure both anions with laboratory-quality accuracy and specificity – even when nitrate levels and are high.

Not only that, but it is robust enough to perform in the activated sludge zone, with industry-leading resistance to blockages, biofouling and interference from organics, turbidity and air bubbles.

In turn, this ensures minimal need for intervention over sustained deployments, making real-time monitoring in this ultra-challenging wastewater environment both practical and affordable.

Trial underway at Spernal

An N₂O emission reduction trial using Aquamonitrix® for nitrate and nitrite-based control is underway at Spernal Wastewater Treatment Plant. This medium-sized WWTP serves as Severn Trent Water’s Urban Strategy Demonstration Site, where emerging technologies compatible with a low energy, circular economy approach are evaluated.



The graphic below is a screenshot from Datamonitrix - the Aquamonitrix® proprietary data management portal – showing real-time nitrite and nitrate levels in the aeration zone at the Spernal plant during August 2022.

