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Nutrient Monitoring Hybrid Workshop: How are nutrient sensors and nutrient monitors helping to protect our waters? Environmental improvement through better process control

5 April 2022

Crewe Hall, Weston Rd, Haslington, Crewe CW1 6UZ

Our boreholes, rivers, streams, lakes and reservoirs provide us with drinking water, some are used for leisure activities. Runoff water from agricultural land and discharges from industry and wastewater treatment are polluting these waters. Excess nutrients in water bodies can cause problems like algal blooms, eutrophication and result in fish kills. We need to protect our water bodies from pollution and keep them in a healthy functioning state to provide ecosystem services and habitats for wildlife.

This workshop will bring together sensor people from supply chain, academia and water companies to demonstrate and discuss the vital role of sensors in improving the state of our surface waters and aquifers. Our workshops are collaborative and engaging, please come along to learn about and share your experience in areas such as;

- How do we measure nutrients in surface and ground waters?
- How does in process nutrient monitoring further back in the process (ASP's, final effluent) help?
- What are the common challenges?
- What are the emerging technologies in nutrient monitoring?

Chair: Mike Strahand, Water Specialist

09:30 Tea, Coffee & registration

10:00 Introduction by the Chairman. **Mike Strahand, Water Specialist**

10:05 Innovative permitting for nutrients and their expansion in PR24. **Barrie Howe, Environment Agency**

10:25 Utilizing state-of-the-art UV LED technology for long-term monitoring of surface & groundwater.

Neill Cornwell, Xylem Analytics

10:45 Water quality and pollution monitoring upstream & downstream of CSOs/WWTWs under the Environment Act 2021. **Rob Stevens, RS Hydro**

11:05 Panel discussion and Q & A led by chairman

11:20 Tea & Coffee

11:50 A microfluidics-based technology for continuous monitoring of nutrients.

Oliver Hoffman, South West Sensors

12:10 An end user's perspective. **Richard Cave, IETG**

12:30 Panel discussion, Q & A and morning summary led by Chairman

12:45 Lunch

13:45 Using instruments designed for the application to reduce OPEX while increasing the efficiency of Nutrient removal processes. **David Wilson, In Situ**

14:05 Improving Water Catchment Management using Aquamonitrix Remote Nitrite & Nitrate Analysers. **Dr Eoin Murray**

14:25 Using sensor data, AI and machine learning for applying knowledge on wastewater N₂O emissions.

Jose Porro, Cobalt Water Global

14:45 Panel discussion and afternoon summary led by chairman

15:15 Close

REGISTRATION: The cost of attending the Workshop is £110 inc VAT for SWIG members in person or online. £210 inc VAT for non-members in person or online. £27 for students. Literature may be distributed for a fee of £85 and a limited number of table top displays are available at £210 each. Registrations can be made by Tel 01934 830658 or to rosa.richards@swig.org.uk or using the on-line booking form. Please advise of any special dietary requirements at time of booking.

Cancellation policy: Refunds can only be made if cancellations are notified at least 5 days in advance of the Workshop date.