



EUROPEAN WASTEWATER MANAGEMENT CONFERENCE & EXHIBITION

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2 - 3 July 2024

The Point at Emirates Old Trafford
Manchester, UK | Online

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DRAFT PROGRAMME

TUESDAY 2nd JULY

PROCESS EMISSIONS

Data driven, climate smart water futures – harnessing data for good

Lake, A.¹ and van Voorthuizen, E.², ¹Jacobs, UK, ²Royal HaskoningDHV, Netherlands

Hydro Nation Chair Research and Innovation Programme: enabling the water sector transition beyond net zero by 2040

Escudero, A., Glasgow Caledonian University, UK

N2O: Should we measure or model and what are the influencing factors generating their emissions at a Wastewater Treatment Plant?

Koodie, T.¹, Audenaert, W.², Vlasschaert, P.², Cheshire, A.¹ and Bellandi, G.², ¹Binnies, UK, ²AM-Team, Belgium

Going low on N2O with multiple measurement methods

Lake, A.¹, Mansell, L.², Kenyon, J.² and Jones, N.², ¹Jacobs, UK, ²United Utilities, UK

Cracking the Code: AI-Powered N₂O reduction in wastewater treatment

McWeeney, B.¹ and Icke, O.², ¹Royal HaskoningDHV, UK, ²Royal HaskoningDHV, Netherlands

What have we learned so far from our wide-scale Nitrous oxide (N2O) emissions monitoring campaign?

Dai, Z., Srinamasivayam, B., Harrison, A. and Antoniadis, A., Severn Trent Water, UK

N2O InSites – a collaborative approach to measurement (and mitigation) of N2O

Lake, A.¹, Kimble, A.², O'Connor, J.³, Foster, R.³ and Wilson, S.⁴, ¹Jacobs, UK, ²Bi-Zen, UK, ³South West Water, UK, ⁴Newcastle University, UK

The generic solution elements for minimizing N₂O production across different biotreatment technologies used in municipal wastewater treatment systems

Palmer, S. and Jeavons, J., Stantec, UK

Flexible permitting and stakeholder engagement for low carbon wastewater solutions

Minall, R.¹ and Davies, S.², ¹Stantec, UK, ²Yorkshire Water, UK

BioWin and SUMO models as digital tools to predict and reduce nitrous oxide emissions from the activated sludge wastewater treatment

Nikolova-Kuscu, R.¹, Fonseca, L.¹, Bungay, S.², Hurne, D.² and Thurston, C.³, ¹Mott MacDonald, UK, ²Mott MacDonald, New Zealand, ³Watercare Services Ltd, New Zealand

TECHNOLOGY SHOWCASE
<p>The next generation of MBBR media for Wastewater treatment Haylock, D.¹, Green, S.² and Allen, D.³, ¹Warden Biomedica, UK, ²SG Process, UK, ³Waste Water Solutions (Europe) Limited, UK</p>
<p>An agile approach to getting trusted process data Kimble, A., BI-Zen Ltd, UK</p>
<p>Presenting Bloom: A SuDS opportunity mapper tailored to the wastewater industry Senior, J., RPS (Tetra Tech), UK</p>
<p>How the Soneco® Electrocoagulation system overcomes the challenges presented by AMP8 Cooper-Smith, G. and Morgan, E., Power and Water, UK</p>
<p>See the signals - a route to using AI to spot leading indicators of environmental incidents Leith, D., COMET, UK</p>
<p>Pragmatism – it’s what we need Foster, D., Huber Technology, UK</p>
<p>Practical examples of APC for process optimisation for compliance, and efficiency goals of today (energy) and tomorrow (N2O) Bouchy, L.¹, Turler, C.² and Dixon, A.², ¹Createch Solutions, Spain, ²Dŵr Cymru Welsh Water, UK</p>
COMPLIANCE & PROCESS OPTIMISATION
<p>Augmenting SIMCAT watercourse modelling with GIS Jackson, D.¹ and Wiggam, R.², ¹Binnies UK, ²Thames Water, UK</p>
<p>Exemplar WWPS - a game changer in wastewater pumping station management Wield, N. Rodger, C., Black, A. and Reid, J., Scottish Water, UK</p>
<p>Process optimisation and achieving compliance at least cost - A brave new approach to wastewater treatment for Northern Ireland Water Webster, E.¹ and Davison, P.², ¹AtkinsRéalis, UK, ²Northern Ireland Water, UK</p>
<p>Viable ways for reliable compliance by optimising tertiary wastewater treatment assets Wouters, H.¹, Grundy, C.² and Narroway, Y.², ¹Brightwork BV, Netherlands, ²United Utilities, UK</p>
<p>Stable and controlled mainstream HRAS, partial nitrification AGS and anammox for a suitable effluent quality Baldi, M.¹, Carbó, O.^{1,2}, Teixidó, J.², Campabadal, M.², Canals, J.², Ordóñez, A.², Gutiérrez, B.², Magrí, A.¹, and Colprim, J.¹, ¹LEQUIA. Institute of the Environment. Universitat de Girona, Spain, ²GS Inima Environment, Spain</p>
<p>New process control opportunities within wastewater treatment through real-time nitrite and nitrate monitoring Murray, E.¹, Lynch, C. and Dai, Z.², ¹Aquamonitrix Ltd, UK., ²Severn Trent Water, UK</p>
<p>Hubgrade performance delivering energy savings at WWTP Langdon, M. and Larsen, L. Veolia Water Technologies, UK</p>
<p>Performance and operational experience of UKs first MBBR coupled with Multiflo clarification Sandalls, C. and Baloch, I., Southern Water, UK</p>

<p>MABR for enhanced nitrification at large wastewater treatment plants: drivers and design rationale Guglielmi, G.¹, Coutts, D.², Di Pofi, M.¹, Peeters, J.², ¹Veolia Water Technologies and Solutions, Italy, ²Veolia Water Technologies and Solutions, Canada</p>
<p>SPILLS, CSOs & STORMWATER</p>
<p>Designing a WwTW for ‘Zero Spills’ Barlow, J.¹, Wilson, L.¹ and Marsh, S.², ¹Stantec, UK, ²Yorkshire Water, UK</p>
<p>Inflow and Infiltration: Using AI to determine the root cause of spills Moloney, B., StormHarvester, UK</p>
<p>An innovative storm screen enhancement solution trial with Samatrix & Dŵr Cymru Welsh Water Williams, F.¹, Loyns, M.¹ and Munn, S.², ¹Dŵr Cymru Welsh Water, UK, ²Samatrix, UK</p>
<p>First UK trial of Mecana PCMF for primary treatment & stormwater treatment Cooper-Smith, G.¹, Barran, A.², Gillman, S.², Headley, D.¹, Fundneider, T.³ and Kemp, J.³, ¹Eliquo Hydrok, UK, ²Scottish Water, UK, ³Mecana, Switzerland</p>
<p>NUTRIENT REMOVAL & RECOVERY</p>
<p>High efficiency batch RO removes N & P from final effluent Bateman, G.¹, Hazard, B.², Naughton, T.³ and Burlance, L.³, ¹Trant Engineering Ltd, UK, ²Te-Tech Process Solutions Ltd, UK, ³Salinity Solutions Ltd, UK</p>
<p>Alternative approaches to phosphorus removal Clarke, R. and Grundy, C., United Utilities, UK</p>
<p>Ammonia to energy: a key decarbonisation strategy for the water sector Powders, M.¹, McAdam, E.¹, Zhu, M.¹, Inman, D.², Brookes, A.², Vale, P.³, Pickersgill, M.⁴ and Jones, C.⁴, ¹Cranfield University, UK, ²Anglian Water, UK, ³Severn Trent Water, UK, ⁴Northumbrian Water, UK</p>
<p>Reactive media filled constructed wetland solutions for phosphorus removal from wastewater Hawes, P., Freeman, A. and Cooper, D.J., ARM Group Ltd, UK</p>
<p>The Cloth and the Catalyst – a new collaboration to deliver ultra-compact and energy efficient wastewater treatment Nair, A., Microvi Biotech, UK</p>
<p>Oxidation ditch configuration for total nitrogen removal without carbon dosing Baloch, I., Tang, C. and Lang, S., Southern Water, UK</p>
<p>NTPlus - sustainably feeding and watering the world - and introducing PhosPlus, decoupling agriculture from fossil fuel byproducts Waite, M., Agua DB Ltd, UK</p>
<p>Nereda Low P Trials – Full-scale experience at Walsall Wood WwTW’s Wohling, A.¹, Townend, N.¹ and Paling, J.², ¹Royal HaskoningDHV, UK, ²Severn Trent Water, UK</p>
<p>An innovation success story: chemical-free process of ammonia recovery from municipal wastewater Malek, P.¹, Tribe, H.², Rawlinson, D.² and Moulden, M.³, ¹WSP, UK, ²Northumbrian Water, UK, ³Organics Group, UK</p>

PANEL DISCUSSION: Should the UK add nutrient recovery targets to the Urban Wastewater Treatment Directive?

Chair: Dr. David Tompkins, Associate Director, WSP

Panel:

- **Mark Craig**, Long Term Asset Strategy Lead, Chief Engineer - Asset Strategy and Performance, Severn Trent Water Ltd, UK
- **Donna Rawlinson**, Commercial Manager, Northumbrian Water, UK
- **Dr. Timothy Holloway**, Principal Research Scientist/Engineer (Wastewater Innovation), Thames Water

NETWORKING

- Drinks reception in the exhibition hall
- Process Emissions networking event
- Conference Dinner at the Grand Pacific

WEDNESDAY 3rd JULY

PLENARY KEYNOTE

Circular Economy: stick or twist?

Dr. David Tompkins, Associate Director, WSP

MICROPOLLUTANTS & EMERGING CONTAMINANTS

Biologically enhanced granular activated carbon filtration

Wouters, J.W.¹, Kramer, J.P.¹ and Dockx, L.², ¹Brightwork BV, Netherlands, ²Aquafin, Belgium

Treating 1 billion litres of AFFF impacted water to less than 0.2ng/L for the sum of PFAS. A case study from Western Australia

Wilson, J.¹ and Farahani, A.², ¹SciDev, UK ²SciDev, Australia

Removal of pharmaceuticals in water using low cost materials

Coleman, H., Arnscheidt, J., Tretsiakova-McNally, S. and Nesbitt, H., Ulster University, UK

BO3 Technology – Sustainable Micropollutant Removal

Lavender, P.¹ and de Wilt, A.², ¹Royal HaskoningDHV, UK, ²Royal HaskoningDHV, Netherlands

Micropollutants treatment, the organic carbon challenge

Ruswa, E., Lake, A., Schimmoller, L., Greico, S., Manyumba, F., Jacobs, UK

Roturi®-based ozonation principle for the simultaneous reduction of ARG and trace substances

Pöschl, U., up2e!, Germany

Experiences with removal and destruction of PFAS from different water sources

Broeders, E., Dhawle, R., Zlatkovskiy, O. and Martin, I., Nijhuis Saur Industries, UK

PANEL DISCUSSION: Process Emissions – Measurement, Mitigation & Holistic Thinking

Chair: Steve Bungay, Senior Partner, AD Ingenuity LLP

Panel:

- **Kenneth McGibbon**, Technical Director, Mott MacDonald
- **Amanda Lake**, Head of Carbon & Circular Economy, Jacobs
- **Ellen van Voorthuizen**, Senior Consultant Wastewater Technology, Royal HaskoningDHV
- **Ziye Dai**, Innovation Technical Expert, Severn Trent Water

SPILLS, CSOs & STORMWATER

Using process and network data alongside climate change forecasting to assess the climate resilience of Scottish Water's wastewater treatment asset base

Russell, E.¹, Duck, C.² and Thomas, D.², ¹Mott MacDonald, UK, ²Scottish Water, UK

Ceramic membrane for storm water treatment; the US experience

Bigot, B.¹, Khare, A.² and Snodgrass, M.², ¹Enpure, UK, ²Ovivo, USA

Investigating in silico the impact of storm returns to wastewater treatment performance

Petropoulos, E.¹, McLachlan, I.¹ and Woodhouse, R.², Stantec, UK, ²Northumbrian Water, UK

INNOVATION

Decentralized Wastewater Treatment Systems (DEWATS) at Battery Park City, New York: A sustainable urban city model

Martin, I.¹, Petrosino, R. and Gallagher, Z., ¹Nijhuis Saur Industries, UK, ²Natural Systems Utilities, USA

Putting MOB to the Test: How a sustainable crop intensifies treatment for Northumbrian Water STWs

Mullins, D.¹ and White, R.², ¹Nuvoda, USA, ²Northumbrian Water, UK

Water Industry Printfrastructure

Clarke, R.¹ and Nwachukwu, C.², ¹United Utilities, UK, ²Mott MacDonald, UK

Natural Coagulant - A sustainable alternative to inorganic salts

Holland, A.¹ and Grundy, C.², ¹Acorn Water Ltd, Ireland, ²United Utilities, UK, Servyeco

CIRCULAR ECONOMY

Scottish Water's pathways to decarbonisation and delivery of their Circular Economy Approach

Bullen, A.¹, Kennedy, T.², Lee, S.² and Simpson, K.², ¹AtkinsRéalis, UK, ²Scottish Water, UK

Smart bio-based biofertilisers formulation with wastewater-recovered nutrient

González-Míguez, A., Romero, A., Rodríguez-Hernández, L. and Castro-Barros, C.M., CETAQUA, Spain

H2 - oh, that sounds like a lot of water...

Gardener, N. and Greenwell, J., Stantec, UK

Biopolymers in the circular economy

Clarke, R. and Short, G., United Utilities, UK

Our rich history in the circular economy and how do we realise now

Sunner, N., Stantec, UK

Cellulose Recovery technology reduces the CO2 emissions of sewage treatment and recovers a valuable resource

Wessels, C.¹ and Martin, I.², ¹CirTec BV, Netherlands, ²Nijhuis Saur Industries, UK

The future of hydrogen production in the UK water sector

Samberger, C.¹, Anderson, H.², Andresen, J.³, Brow, D.¹, Cawthorne, L.², Futter, M.¹ and Le Roux, A., ¹Stantec, UK, ²Ikigai, UK, ³Heriot Watt University, UK

NATURE BASED SOLUTIONS

Using an innovative Catchment Nutrient Balancing (CNB) approach to improve river water quality: A case study from a rural sub catchment in Cumbria, United Kingdom

Rajapaksha, N.¹, Airton, J.¹, Aboobakar, A.², Chappell, N.³, Mindham, D.³ and Dyer, A.², ¹United Utilities, UK, ²The Rivers Trust, UK, ³Lancaster Environment Centre, UK

Methodology for efficient prioritisation of sites for suds implementation

Adamson, G., EnginSoft UK Ltd, UK

Nature Based Solutions: are they a suitable competitor with wastewater companies' grey infrastructure?

Dawe, E.-K.¹, Parnell-Pope, L.¹, Patel, N.¹ and McConnachie, A.², ¹Aqua Consultants, UK, ²Adler & Allan, UK

UKWIR project GHG from Nature Based Solutions

Gunnell, K., AtkinsRéalis, UK

TECHNOLOGY SHOWCASE

Nitrogen recovery from digestate and polluted wastewater with advanced ammonium air stripping technologies

van den Broek, J.¹, Buffinga, G.¹, van den Eijnde, T.² and Martin, I.³, ¹Nijhuis-Byosis, Netherlands, ²Nijhuis Saur Industries, Netherlands, ³Nijhuis Saur Industries, UK

Using remote earth observation techniques to find sewer exfiltration

Rabinovitch, Y. and Boukai, A., ASTERRA, Israel

Ammonia based aeration control

Fosten, A., In-Situ, UK

Minimum P for minimum pounds

Biddle, J., Bluewater Bio, UK

Drowning in Data – a smart, serviceable, scalable catchment solution for Section 82 Monitoring from Xylem

Chapman, J., Hanson, D., Lang, P. and Clarke, R., Xylem Water Solutions UK Ltd, UK

Nanobubble technology - breaking down FOG & surfactants at primary treatment

Holland, A., Acorn Water Limited, Ireland

Innovation - Exploring pressure and its positive impact on monitoring rising mains

Hendy, M., Syrinix - A Badge Meter Brand, UK

POSTERS

A low-temperature ammonia electrolyser for wastewater treatment and hydrogen production

Latvyte, E.¹, Zhu, X.¹, Wu, L.¹, Lan, R.¹, Vale, P.² and Graves, J.¹, ¹Institute of Clean Growth and Future Mobility, Coventry University, UK, ²Severn Trent Water, UK

80% - 100% (Sludge Elimination) using Ydro-Process

Aleshkina, N. and Zuravliov, BIO-RAN Ltd, UK

<p>Low-cost material for the adsorption of antibiotics Onyekachukwu. E., Nesbitt, H., Tretsiakova-McNally, S. and Coleman, H., Ulster University, UK</p>
<p>Trash to treasure: harnessing the power of agricultural wastes for generating cleaner water Abudu, L.¹, Coleman, H.¹, Oluseyi, T.², Tretsiakova-McNally, S.¹, Adeyemi, D.², Adams, L.², Arnscheidt, J.¹, O’Hagan, B.¹ and Bhosale, R.¹, ¹Ulster University, UK, ²University of Lagos, Nigeria</p>
<p>From wastewater to climate impact: CREW’s CO2 removal approach Katchinoff, J.¹, Vu, K.¹, D’Ascanio, R.¹ and Planavsky, N.², ¹CREW Carbon, USA ²Yale University, USA</p>
<p>Fixing nitrogen and the urban water cycle Allan, C., University of Strathclyde, UK</p>
<p>Ammonia to energy: a key decarbonisation strategy for the water sector Powders, M.¹, McAdam, E.¹, Zhu, M.¹, Inman, D.², Brookes, A.², Vale, P.³, Pickersgill, M.⁴ and Jones, C.⁴, ¹Cranfield University, UK, ²Anglian Water, UK, ³Severn Trent Water, UK, ⁴Northumbrian Water, UK</p>
<p>Natural Coagulant - A sustainable alternative to inorganic salts Holland, A.¹ and Grundy, C.², ¹Acorn Water Ltd, Ireland, ²United Utilities, UK Servyeco,</p>
<p>Ammonia based aeration control Fosten, A., In-Situ, UK</p>
<p>Using process and network data alongside climate change forecasting to assess the climate resilience of Scottish Water's wastewater treatment asset base Russell, E.¹, Duck, C.² and Thomas, D.², ¹Mott MacDonald, UK, ²Scottish Water, UK</p>
<p>Investigating in silico the impact of storm returns to wastewater treatment performance Petropoulos, E.¹, McLachlan, I.² and Woodhouse, R.², ¹Stantec, UK, ²Northumbrian Water, UK</p>
<p>CREW Carbon - Removing CO2 & Greenhouse Gases from Wastewater Holland, A.¹ and Katchinoff, J.², ¹Acorn Water Ltd, Ireland, ²CREW Carbon, USA</p>
<p>Decision support tool for the mitigation of nitrous oxide emissions Gray, M., Hach, UK</p>

Supporting Organisations

