



EUROPEAN WASTEWATER MANAGEMENT CONFERENCE & EXHIBITION

12-13 July 2022

The Hilton Birmingham Metropole / Online

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TUESDAY 12TH JULY

PLENARY KEYNOTE

Upgrading our wastewater network to protect our waterways – the scale of the challenge

Singer, A., UK Centre for Ecology & Hydrology

NET ZERO CARBON & THE CIRCULAR ECONOMY

Measuring Seasonal Variations in Nitrous Oxide Emissions from the Activated Sludge Process

Wild, R., Carliell-Marquet, C., Srinamasivayam, B., Vale, S., Severn Trent, UK

Process optimisation to meet wastewater net zero air quality targets

Lewis, C.¹ and Kelly, R.², Suez Smart & Environmental Solutions, ¹UK & ²France

AMBI-ROBIC – Cold anaerobic treatment for UK Sewages – how NetZero Solution to implement before 2030

Rogers, A. and Holohan, C., NVP Energy, UK

Methane recovery at Spenal Sewage Treatment World – a world-first application of technology

Bolton, C.¹, Dulgheru, T.¹, Jackson, R.², Sprague, A.¹, Madeley, N.¹, Smith, R.³, ¹Mott MacDonald Bentley (MMB), ²MMBC, ³Severn Trent, UK

Lessons for Process emissions we can (and must) learn today

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

Yes, how advanced aeration control contributes to NetZero in many other ways than energy!

Hazard, B.¹, Bouchy, L.², Froom, M.¹, ¹Te-Tech Process Solutions, UK, ²CreaTech360, Spain

The basics of 50% energy saving

Newman, J., Kirkham, D., Puckering, O., Xylem Inc, UK

Key drivers and barriers to circular economy in the wastewater treatment sector

Samberger, C., Stantec, UK

Delivering a low carbon, circular water sector

Lake, A.¹, Boere, J.², Katsou, E.³, ¹Jacobs, UK, ²Allied Waters, The Netherlands, ³University of Brunel, UK

Use locally produced effluent to combat drought: wastewater is an eternal water resource

Lavender, P. and Kerstens, S., Royal HaskoningDHV, UK

Application of Circular Economy concept towards a sustainable wastewater management: case study of a Full-scale UASB reactor in a Developing Country

Arthur, P.M.A.¹, Konate, Y.¹, Sawadogo, B.¹, Sagoe, G.², Ahmed, I.³, Dwumfour-Asare, B.⁴, ¹Institut International d'Ingénierie de l'Eau et de l'Environnement (2iE), Burkina Faso, ²Waste Landfills Co. Ltd, Ghana, ³Sewerage Systems Ghana Ltd, Ghana, ⁴AAM – University of Skills Training and Entrepreneurial Development, Ghana

NATURAL SOLUTIONS

Industrial Phycology: Harnessing the natural power of microalgae as a multi-benefit nature-based solution for the wastewater industry

Ekins-Coward, T., Ho, F., Baldry, M., Industrial Phycology, UK

Exploiting urban wastewater: sustainable production of the new superfood *Galdieria phlegrea* with low-consumption reactors

di Cicco, M-R., Ciniglia, C., Palmieri, M., Lovinella, M., Lubritto, C., University of Campania Luigi Vanvitelli, Italy

NBS and Reactive media for Phosphorus removal at Severn Trent as part of our rural strategy: characterisation, assessment, deployment

Palmer, M., Sousa, J., Smith, R.A., Richards, A., Pitt, S., Severn Trent, UK

EMERGING CONTAMINANTS

Innovations in new sustainable low TOTEX treatment technologies for micropollutant removal

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

Do process operational variables impact the fate of micropollutants in Activated Sludge Plants?

Herron, D.¹, Campo-Moreno, P.², Monkhouse, C.¹, Thornton, A.³, ¹Aqua Enviro, ²Cranfield Water Science Institute, ³Atkins

An evaluation of the approaches for managing microplastics in the post-Brexit era: a case study from the Thames River

Khatri, S., University of Windsor, Canada

Microplastics in wastewater – Sampling, extraction and analysis – Chem 5 experiences

Bugg, T.¹ and Johnson, A.², ¹Aqua Enviro, ²CEH, UK

POINT SOURCE POLLUTION CONTROL

Effective and sustainable final effluent disinfection at Anglian Water using in-situ produced PFA oxidisation

Morris, P.¹, Hall, G.², Aubeuf-Prieur, P.¹, ¹Kemira, ²Anglian Water Services, UK

Tertiary wastewater treatment, combining sand filtration and UV technology

Wouters, H.¹, Thege, C.², Vermeeren, W.J.A.M.³, ¹Brightwork BV, ²Van Remmen UV Technology, ³Waterboard Brabantse Delta, The Netherlands

Treatment of emerging contaminants “An evaluation of the te-ion™ non-thermal plasma-based oxidation process”

Hazard, B.¹, Jabornig, S.², Marinheiro, L.³, ¹T-Tech Process Solutions, ²SFC Umwelttechnik, Austria ³AST – Environmental Solutions and Services, USA

Removing pharmaceutical compounds at the source and centralized to reuse wastewater effluent for irrigation purposes

Broeders, E.¹, Boelee, N.C.¹, Kramer-Hoenderboom, A.², Groot Kormelinck, K.³, ¹Nijhuis Saur Industries, ²Waterschap Rijn en IJssel, ³Van Remmen UV Technology BV, The Netherlands

NETWORK MANAGEMENT

What to learn from your cousins in the US about storm overflow drivers

Umble, A., Stantec, USA

Eliminating harm from storm overflows: mission impossible?

Gill, E., Stantec, UK

SewerBall: A new concept to inspect sewers using a mobile device and to monitor fluxes at various locations

Maruejols, T.^{1,2,3}, Theias, H.², La Iglesia, J.³, Minall, R.⁴, Khan, M.⁴, ¹LyRE – Suez Research Center, France, ²AXEO TP, France, ³Suez, France, ⁴Aqua Enviro, UK

Delivering Dynamic Network Management to deliver the ‘wastewater network of the future’

Lavender, P., Royal HaskoningDHV, UK

Network optimisation using AquAdvanced Urban drainage smart digital solution

Gordon, M., Suez Advanced Solutions UK Ltd

A low carbon approach to stormwater treatment

Cooper-Smith, G. and O’Brien, L., Eliquo Hydrok, UK

WEDNESDAY 13TH JULY

PLENARY KEYNOTE

The black, the green – the purple and yellow... shifting from wastewater to resource recovery

Rogalla, F., FCC Aqualia, Spain

PHOSPHORUS

From universal agreements to wild contradictions - the different approaches to chemical phosphorus removal across the UK wastewater industry

Thompson, A. and Hernandez-Ramirez, O., Atkins

An overview of the phosphorus removal processes to meet stringent discharge limits of < 0.1 mgP/L

Andalib, M., Vice President/Wastewater Treatment Sector Leader, Stantec USA

Finding the right balance: Investigating Catchment Nutrient Balancing and delivering the benefits to phosphorous removal schemes

Palmer, M.¹, Cooke, A.L.¹, Rettino, J.¹, Gilbert, J.², Smith, R.², Davison, P.², ¹Severn Trent, UK, ²Stantec, UK

Optimising phosphorus removal using FilterClear

Huo, C. and Biddle, J., Bluewater Bio, UK

Primary Sludge Fermentation – a natural step towards chemical-free phosphorus removal

Hazard, B.¹ and Wutscher, ¹Te-Tech Process Solutions, UK, ²SFC Umwelttechnik, Austria

Full scale low phosphorus trials: challenging existing assets

Sandalls, C. and Baloch, I., Southern Water, UK

Side-Stream Fermentation to achieve low-P permits by EBPR, Viable?

Mendizabal, J., Severn Trent, UK

A scaling-up approach towards a VFA valorization of industrial wastewater

Casero-Diaz T., Silva-Teira A., Parama V., Gonzalez A., Castro-Barros C.M., Carballa, M, Mauricio-Iglesias, M., CETQUA – Water Technology Centre, Spain

Treatment of tertiary solids removal return liquors

Bullen, C., Florence, K., Davies, R., Siltbuster, UK

Innovative technology for achieving UK's lowest phosphorus levels

Jarvis, S.¹, Lea, G.¹, Sandalls, C.¹, Cooper, P.², ¹Southern Water, ²Veolia Water, UK

Recent developments in electrochemical wastewater treatment

Cooper-Smith, G., Cowan, H., Jones, S., Matthews, Z., Power & Water, UK

Optimisation Strategy and Lessons Learned on AMP6 Low Phosphorus Sites

Sandalls, C., Hossain, A., Pinheiro, M., Liang, S., Boyer, M., Jarvis, S., Lea, G., Baloch, I., Southern Water, UK

PROCESS OPTIMISATION

Innovative Moving bed biofilm reactor (MBBR) media for total nutrient removal from municipal wastewater

Parsotamo, A.^{1,2}, Soares, A.¹, Barrett, M.², Hassan, J.², ¹Cranfield University, ²Warden Biomedica, UK

Membrane Aerated Biofilm Reactors: the simple and sustainable way to process intensification and enhanced nitrification in existing wastewater treatment plants

Coutts, D.¹, Pitt, S.¹, Cariell-Marquet, C.², Vale, P.², Martin, I.¹, Murphy, M.¹, Guglielmi, G.¹, ¹Suez Water Technologies & Solutions, UK, ²Severn Trent, UK

Retrofitting the Mobile Organic Biofilm (MOB™) Process as a hybrid fixed-film and granular sludge technology for full-scale WRFs

Calhoun, J., Nuvoda, USA

Developments and expansions of a suite of trickling filters design models

Pearce, P., Farmiloe Fisher Environment Ltd, UK

Optimising Nereda performance at Inverurie

Oliver, B.¹, Fox, R.², Reid, G.², ¹Royal HaskoningDHV, UK, ²Scottish Water, UK

AMP8 DESIGN CHALLENGES

Navigating The New World in AMP8

Sunner, N., Stantec, UK

The challenges facing an SME in delivering innovation and value

Cooper-Smith, G. and O'Brien, L., Eliquo Hydrok, UK

Is over design hindering carbon reduction?

Jeavons, J.¹ and Jolly, M.², ¹Stantec, UK ²Yorkshire Water, UK

BEWISe wastewater research facility

Davenport, R., Newcastle University, UK

METAGENOMICS

Systems tools and systems analysis approaches for evaluating biotreatment intensification and optimisation

Palmer, S., Stantec, UK

Metagenomics & Activated Sludge: Techniques, who's there, and the next steps

Sheeran, K., Herron, D., Smyth, M., Aqua Enviro, UK

Catch me if you can: Are we really able to exploit new microorganisms to meet new and existing challenges in wastewater treatment

Nair, A., Microvi Biotech, UK

Metagenomics: An innovative & practical tool to drive down Carbon, OPEX, Nitrogen & Phosphorus

Smyth, M.¹, Sheeran, K.¹, Tillotson, J.², ¹Aqua Enviro, UK, ²Microbe Detectives, UK

POSTERS

Designing a microplastics sampling procedure in Thessaloniki Wastewater Treatment Plant

Lioumbas, I., Christodoulou, A., Papageorgiou, M., Papastergiou, F., Thessaloniki Water Supply and Sewerage Company SA, Greece

Recovery of nitrogen from sludge digestate polluted wastewater with advanced ammonium air stripping technology

van den Broek, J. and Buffinga, G-J., Byosis Group BV, The Netherlands

Management and Control of Biofilms

Morgan, E., KP2M Ltd T/A Power & Water, UK

Optimal storage sizing for indoor arena rainwater harvesting: Filton Airfield, UK

Kim, J. and Hofman, J., University of Bath, UK

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Parsotamo, A.¹, Soares, A.¹, Barrett, M.², Hassan, J.², ¹Cranfield University, ²Warden Biomedica, UK

Innovative technology to remove nitrogen and produce climate friendly fertilizers

Lundbom, A., Högberg, C-J., Cohen, Y., EasyMining Services Sweden AB

MIL-100(Fe): Sorbent Material for Antibiotic Removal and Recovery

Quinlivan, A., University of Nottingham, UK

Methane recovery at Sperial Sewage Treatment World – a world-first application of technology

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di Cicco, M-R., Ciniglia, C., Palmieri, M., Lovinella, M., Lubritto, C., University of Campania Luigi Vanvitelli, Italy

Benefits of a design sprint – optioneering down from months to days

Tokaryk, M., Mott MacDonald Bentley, UK

Collaborative Problem Solving for Enhanced Biological Phosphorus Removal

Murray, S., Mott MacDonald Bentley, UK

Anoxic and Oxidic-Settling-Anoxic Modified Conventional Treatment for In-situ Sludge Minimization from Industrial Wastewater

Sodhi, V^{1,2}, Bansal, A.², Jha, M.K.², Sodhi, N.³, Arora, J.K.¹, ¹Climate Change Knowledge Center, Punjab State Council for Science & Technology, ²Dr. B. R. Ambedkar National Institute of Technology, ³Ramco International, India

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