

## TUESDAY 12<sup>TH</sup> JULY

	PRINCES ROOM/STREAM 1	LIBRARY ROOM/STREAM 2
	<b>Conference Opening and Plenary Keynote</b>	
<b>09.30 – 09.35</b>	<b>Chair's welcome</b> – Rowland Minall, General Manager, Aqua Enviro	
<b>09.35 – 10.00</b>	<b>Keynote: Upgrading our wastewater network to protect our waterways – the scale of the challenge</b> Andrew Singer, Principal Scientist, UK Centre for Ecology & Hydrology	
	<b>Natural Solutions</b> Chair – Julie Jeavons, Technical Discipline Leader, Stantec	<b>Network Management</b> Chair – Rowland Minall, General Manager, Aqua Enviro
<b>10.05 – 10.30</b>	<b>Industrial Phycology: Harnessing the natural power of microalgae as a multi-benefit nature-based solution for the wastewater industry</b> Ho, F., Ekins-Coward, T., Baldry, M., Industrial Phycology, UK	<b>What to learn from your cousins in the US about storm overflow drivers</b> Umble, A., Stantec, USA
<b>10.30 – 10.55</b>	<b>NBS and Reactive media for Phosphorus removal at Severn Trent as part of our rural strategy: characterisation, assessment, deployment</b> Palmer, M., Sousa, J., Smith, R.A., Richards, A., Pitt, S., Severn Trent, UK	<b>Eliminating harm from storm overflows: mission impossible?</b> Gill, E., Stantec, UK
<b>10.55 – 11.20</b>		<b>SewerBall: A new concept to inspect sewers using a mobile device and to monitor fluxes at various locations</b> Maruejous, T. <sup>1,2,3</sup> , Theias, H. <sup>2</sup> , La Iglesia, J. <sup>3</sup> , Minall, R. <sup>4</sup> , Khan, M. <sup>4</sup> , <sup>1</sup> LyRE – Suez Research Center, France, <sup>2</sup> AXEO TP, France, <sup>3</sup> Suez, France, <sup>4</sup> Aqua Enviro, UK
<b>11.20 – 11.45</b>	<b>Morning break and networking</b>	
	<b>Managing Carbon &amp; The Circular Economy</b> Chair – Ellen van Voorthuizen, Senior Consultant – Wastewater Technology, Royal HaskoningDHV	<b>Network Management cont.</b> Chair – Rowland Minall, General Manager, Aqua Enviro
<b>11.45 – 12.10</b>	<b>Measuring Seasonal Variations in Nitrous Oxide Emissions from the Activated Sludge Process</b> Wild, R., Carliell-Marquet, C., Srinamasivayam, B., Vale, S., Severn Trent, UK	<b>Delivering Dynamic Network Management to deliver the 'wastewater network of the future'</b> Tiemessen, N. and Lavender, P., Royal HaskoningDHV
<b>12.10 – 12.35</b>	<b>Process optimisation to meet wastewater net zero air quality targets</b> Lewis, C. <sup>1</sup> , Nibart, M. <sup>1</sup> , Kelly, R. <sup>2</sup> , Suez Smart & Environmental Solutions, <sup>1</sup> UK & <sup>2</sup> France	<b>Network optimisation using AquAdvanced Urban drainage smart digital solution</b> Gordon, M., Suez Advanced Solutions UK Ltd
<b>12.35 – 13.00</b>	<b>AMBI-ROBIC – Cold anaerobic treatment for UK Sewages – how NetZero Solution to implement before 2030</b> Rogers, A. and Holohan, C., NVP Energy, UK	<b>A low carbon approach to stormwater treatment</b> Cooper-Smith, G. and O'Brien, L., Eliquo Hydrok, UK
<b>13.00 – 14.00</b>	<b>Lunch &amp; networking</b>	

<b>Managing Carbon &amp; The Circular Economy cont.</b> Chair – Pete Vale, Carbon & Circular Economy Architect, Severn Trent		<b>Emerging Contaminants</b> Chair – Kate Bullen, Asset Commissioning Manager, Wessex Water
<b>14.00 – 14.25</b>	<b>Methane recovery at Sprenal Sewage Treatment World – a world-first application of technology</b> Agorio Comas, F and Johnson, P., Mott MacDonald Bentley	<b>An evaluation of the approaches for managing microplastics in the post-Brexit era: a case study from the Thames River</b> Khatri, S., University of Windsor, Canada
<b>14.25 – 14.50</b>	<b>Yes, how advanced aeration control contributes to NetZero in many other ways than energy!</b> Bouchy, L. <sup>1</sup> , Hazard, B. <sup>2</sup> , Fromm, M. <sup>2</sup> , <sup>1</sup> CreaTech360, Spain, <sup>2</sup> Te-Tech Process Solutions, UK	<b>Microplastics in wastewater – Sampling, extraction and analysis – Chem 5 experiences</b> Bugg, T. <sup>1</sup> and Johnson, A. <sup>2</sup> , <sup>1</sup> Aqua Enviro, <sup>2</sup> CEH, UK
<b>14.50 – 15.15</b>	<b>The basics of 50% energy saving</b> Newman, J., Kirkham, D., Puckering, O., Xylem Inc, UK	<b>Innovations in new sustainable low TOTEX treatment technologies for micropollutant removal</b> de Wilt, A. <sup>1</sup> and Lavender, P. <sup>2</sup> , Royal HaskoningDHV, <sup>1</sup> The Netherlands, <sup>2</sup> UK
<b>15.15 – 15.40</b>	<b>Use locally produced effluent to combat drought: wastewater is an eternal water resource</b> Lavender, P. and Kerstens, S., Royal HaskoningDHV, UK	<b>CIP3 CHEM12 - mechanisms of removal</b> <b>Do process operational variables impact the fate of micropollutants (MP) in ASP and is tertiary treatment feasible for the removal of residual MP?</b> Monkhouse, C. <sup>1</sup> , Herron, D. <sup>1</sup> , Campo-Moreno, P. <sup>2</sup> , Thornton, A. <sup>3</sup> , <sup>1</sup> Aqua Enviro, <sup>2</sup> Cranfield Water Science Institute, <sup>3</sup> Atkins
<b>15.40 – 16.00</b>	<b>Afternoon break and networking</b>	
<b>Managing Carbon &amp; The Circular Economy cont.</b> Chair – Pete Vale, Carbon & Circular Economy Architect, Severn Trent		<b>Point Source Pollution Control</b> Chair – Matt Smyth, Technical Director, Aqua Enviro
<b>16.00 – 16.25</b>	<b>Key drivers and barriers to circular economy in the wastewater treatment sector</b> Samberger, C., Stantec, UK	<b>Effective and sustainable final effluent disinfection at Anglian Water using in-situ produced PFA oxidation</b> Morris, P. <sup>1</sup> , Hall, G. <sup>2</sup> , Aubeuf-Prieur, P. <sup>1</sup> , <sup>1</sup> Kemira, <sup>2</sup> Anglian Water Services, UK
<b>16.25 – 16.50</b>	<b>Application of Circular Economy concept towards a sustainable wastewater management: case study of a Full-scale UASB reactor in a Developing Country</b> Arthur, P.M.A. <sup>1</sup> , Konate, Y. <sup>1</sup> , Sawadogo, B. <sup>1</sup> , Sagoe, G. <sup>2</sup> , Ahmed, I. <sup>3</sup> , Dwumfour-Asare, B. <sup>4</sup> , <sup>1</sup> Institut International d'Ingénierie de l'Eau et de l'Environnement (2iE), Burkina Faso, <sup>2</sup> Waste Landfills Co. Ltd, Ghana, <sup>3</sup> Sewerage Systems Ghana Ltd, Ghana, <sup>4</sup> AAM – University of Skills Training and Entrepreneurial Development, Ghana	<b>Tertiary wastewater treatment, combining sand filtration and UV technology</b> Wouters, H. <sup>1</sup> , Thege, C. <sup>2</sup> , Vermeeren, W.J.A.M. <sup>3</sup> , <sup>1</sup> Brightwork BV, <sup>2</sup> Van Remmen UV Technology, <sup>3</sup> Waterboard Brabantse Delta, The Netherlands
<b>16.50 – 17.15</b>	<b>Wastewater surveillance for pathogen risk in 2022 and beyond</b> Paul Ryan, Modern Water	<b>Treatment of emerging contaminants “An evaluation of the te-ion™ non-thermal plasma-based oxidation process”</b> Hazard, B. <sup>1</sup> , Jabornig, S. <sup>2</sup> , Marinheiro, L. <sup>3</sup> , <sup>1</sup> T-Tech Process Solutions, <sup>2</sup> SFC Umwelttechnik, Austria <sup>3</sup> AST – Environmental Solutions and Services, USA
<b>17.15 – 17.40</b>		<b>Removing pharmaceutical compounds at the source and centralized to reuse wastewater effluent for irrigation purposes</b> Broeders, E. <sup>1</sup> , Boelee, N.C. <sup>1</sup> , Kramer-Hoenderboom, A. <sup>2</sup> , Groot Kormelinck, K. <sup>3</sup> , <sup>1</sup> Nijhuis Saur Industries, <sup>2</sup> Waterschap Rijn en IJssel, <sup>3</sup> Van Remmen UV Technology BV, The Netherlands
<b>19.15</b>	<b>Conference Dinner</b>  Kindly sponsored by	

**WEDNESDAY 13<sup>TH</sup> JULY**

	<b>PRINCES ROOM/STREAM 1</b>	<b>LIBRARY ROOM/STREAM 2</b>
	<b>Metagenomics</b> Chair – Rowan Luck, Treatment Process Engineering Team Lead, Severn Trent	<b>Phosphorus</b> Chair – Lynne Bouchy, Product Line Manager, Createch360
<b>09.00 – 09.25</b>	<b>Systems tools and systems analysis approaches for evaluating biotreatment intensification and optimisation</b> Palmer, S., Stantec, UK	<b>From universal agreements to wild contradictions - the different approaches to chemical phosphorus removal across the UK wastewater industry</b> Thompson, A. and Hernandez-Ramirez, O., Atkins
<b>09.25 – 09.50</b>	<b>Metagenomics &amp; Activated Sludge: Techniques, who's there, and the next steps</b> Sheeran, K., Herron, D., Smyth, M., Aqua Enviro, UK	<b>An overview of the phosphorus removal processes to meet stringent discharge limits of &lt; 0.1 mgP/L</b> Andalib, M., Stantec USA
<b>09.50 – 10.15</b>	<b>Catch me if you can: Are we really able to exploit new microorganisms to meet new and existing challenges in wastewater treatment</b> Nair, A., Microvi Biotech, UK	<b>Finding the right balance: Investigating Catchment Nutrient Balancing and delivering the benefits to phosphorous removal schemes</b> Palmer, M. <sup>1</sup> , Cooke, A.L. <sup>1</sup> , Rettino, J. <sup>1</sup> , Gilbert, J. <sup>2</sup> , Smith, R. <sup>2</sup> , Davison, P. <sup>2</sup> , <sup>1</sup> Severn Trent, UK, <sup>2</sup> Stantec, UK
<b>10.15 – 10.40</b>	<b>Metagenomics: An innovative &amp; practical tool to drive down Carbon, OPEX, Nitrogen &amp; Phosphorus</b> Smyth, M. and Sheeran, K., Aqua Enviro, UK	<b>Optimising phosphorus removal using FilterClear</b> Huo, C. and Biddle, J., Bluewater Bio, UK
<b>10.40 – 11.10</b>	<b>Morning break and networking</b>	
	<b>AMP8 Design Challenges</b> Chair – Jon Shepherd, EU/UK Business Development Manager, Modern Water	<b>Phosphorus cont.</b> Chair – Lynne Bouchy, Product Line Manager, Createch360
<b>11.10 – 11.35</b>	<b>Navigating The New World in AMP8</b> Sunner, N., Stantec, UK	<b>Primary Sludge Fermentation – a natural step towards chemical-free phosphorus removal</b> Hazard, B. <sup>1</sup> and Wutscher, <sup>1</sup> Te-Tech Process Solutions, UK, <sup>2</sup> SFC Umwelttechnik, Austria
<b>11.35 – 12.00</b>	<b>Is over design hindering carbon reduction?</b> Jeavons, J. <sup>1</sup> and Jolly, M. <sup>2</sup> , <sup>1</sup> Stantec, UK <sup>2</sup> Yorkshire Water, UK	<b>Full scale low phosphorus trials: challenging existing assets</b> Sandalls, C. and Baloch, I., Southern Water, UK
<b>12.00 – 12.25</b>	<b>BEWise - A research facility to speed up innovation in the water sector</b> Davenport, R., Newcastle University, UK	<b>Side-Stream Fermentation to achieve low-P permits by EBPR, Viable?</b> Mendizabal, J., Severn Trent, UK
<b>12.25 – 13.20</b>	<b>Lunch and networking</b>	

	<b>Plenary Keynote &amp; Poster Award Presentation</b> Chair – Rowland Minall, General Manager, Aqua Enviro	
13.20 – 13.50	<b>The black, the green – the purple and yellow... shifting from wastewater to resource recovery</b> Frank Rogalla, Director of Innovation & Technology, FCC Aqualia, Spain	
13.50 – 13.55	<b>Student &amp; Young Professionals' Poster Competition Award</b>	
	<b>Process Optimisation</b> Chair – Steve Bungay, Technical Director, Helix Environmental Consultancy Ltd	<b>Phosphorus cont.</b> Chair – Mike Froom, Business Development Director, Te-Tech Process Solutions
14.00 – 14.25	<b>Novel media for biological phosphorus and nitrogen removal from municipal wastewater using a moving bed biofilm reactor (MBBR)</b> Parsotamo, A. <sup>1,2</sup> , Soares, A. <sup>1</sup> , Barrett, M. <sup>2</sup> , Hassan, J. <sup>2</sup> , <sup>1</sup> Cranfield University, <sup>2</sup> Warden Biomedica, UK	<b>Innovative technology for achieving UK's lowest phosphorus levels</b> Jarvis, S. <sup>1</sup> , Lea, G. <sup>1</sup> , Sandalls, C. <sup>1</sup> , Cooper, P. <sup>2</sup> , <sup>1</sup> Southern Water, <sup>2</sup> Veolia Water, UK
14.25 – 14.50	<b>Membrane Aerated Biofilm Reactors: the simple and sustainable way to process intensification and enhanced nitrification in existing wastewater treatment plants</b> Coutts, D. <sup>1</sup> , Pitt, S. <sup>1</sup> , Cariell-Marquet, C. <sup>2</sup> , Vale, P. <sup>2</sup> , Martin, I. <sup>1</sup> , Murphy, M. <sup>1</sup> , Guglielmi, G. <sup>1</sup> , <sup>1</sup> Suez Water Technologies & Solutions, UK, <sup>2</sup> Severn Trent, UK	<b>A scaling-up approach towards a VFA valorization of industrial wastewater</b> Casero-Diaz T., Silva-Teira A., Parama V., Gonzalez A., Castro-Barros C.M., Carballa, M, Mauricio-Iglesias, M., CETAQUA – Water Technology Centre, Spain
14.50 – 15.00	<b>Comfort break</b>	
15.00 – 15.25	<b>Retrofitting the Mobile Organic Biofilm (MOB™) Process as a hybrid fixed-film and granular sludge technology for full-scale WRFs</b> Calhoun, J., Nuvoda, USA	<b>Recent developments in electrochemical wastewater treatment</b> Cooper-Smith, G., Cowan, H., Jones, S., Matthews, Z., Power & Water, UK
15.25 – 15.50	<b>Optimising Nereda performance at Inverurie</b> Oliver, B. <sup>1</sup> , Fox, R. <sup>2</sup> , Reid, G. <sup>2</sup> , <sup>1</sup> Royal HaskoningDHV, UK, <sup>2</sup> Scottish Water, UK	<b>Optimisation Strategy and Lessons Learned on Low Phosphorus Sites</b> Sandalls, C., Hossain, A., Pinheiro, M., Liang, S., Harris, R., Simmons, L., Boyer, M., Jarvis, S., Lea, G., Baloch, I., Southern Water, UK
15.50 – 16.15	<b>Developments and expansions of a suite of trickling filters design models</b> Pearce, P., Farmiloe Fisher Environment Ltd, UK	