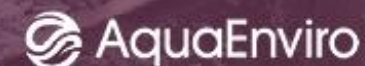


EUROPEAN WASTE WATER MANAGEMENT VIRTUAL CONFERENCE & EXHIBITION

13th - 14th October 2020



TUESDAY 13th OCTOBER

Conference Opening and Welcome

KEYNOTE

Resource recovery: some potentials and their caveats

Willy Verstraete, Ghent University, Belgium

TECHNICAL SESSION 1

AMP 6 PHOSPHORUS REMOVAL EXPERIENCES

So where have we landed with Lower P Permits?

Sunner, N., Stantec, UK

Optimising chemical dosing to meet P consents in Yorkshire Water

Pilgrim, E.¹ and Smyth, M.², ¹Yorkshire Water, ²Aqua Enviro, UK

An assessment of limiting solids loading to Mecana pile cloth filters

Smith, L.¹, Cooper-Smith, G.² and O'Brien, L.², ¹Yorkshire Water, ²Eliquo Hydrok, UK

Meeting lower total phosphorus standards – FilterClear design and commissioning experience

Huo, C., Bluewater Bio, UK

Discussion and Round-Up

FUTURE CONSENT CHALLENGES

The role of wastewater treatment works in the future of antimicrobial resistance

Osborn, B., Byrne, R., Sandford, G., Thomas, D., Waddington, C., Dobson, S. and Gordon, C., Mott MacDonald, UK

Can micropollutant and nutrient removal from municipal wastewater effluent be combined?

Boelee, N.¹, van den Eijnde, T.¹ and Bates, P.², ¹Nijhuis Water Technologies, The Netherlands, ²Nijhuis, UK

Beyond ultra-low effluent phosphorus concentration: the benefits of using rare earth elements in wastewater treatment

Haneline, M.R., and Wherry, L.S., Neo Chemicals and Oxides, USA

P-Removal without chemicals – containerised electrocoagulation as an innovative greener alternative

Nkrumah, K., Kolina Ltd, UK

Discussion and Round-Up

Exhibition & Networking

Dedicated time for you to explore the sponsor and exhibitor area, you can also join group discussions and network with other attendees.

Themed Roundtable Discussions

Break

TECHNICAL SESSION 2

AMP 6 PHOSPHORUS REMOVAL EXPERIENCES

Initial operating experiences in achieving a 0.2 mg/l P standard at Goscote WwTW
Cooper-Smith, G.¹ and Hughes, P.², ¹Eliquo Hydrok, ²Mott MacDonald Bentley, UK

Operational performance of the BioMag process to improve capacity and lower the Phosphate discharge at Severn Trent (Rugby WWTW)
Goodwin, J.¹ and Hobbs, E.², ¹Evoqua Water Technologies, ²Severn Trent Water, UK

Operational performance of the CoMag process to lower the Phosphate discharge at Severn Trent (Finham WWTW)
Goodwin, J.¹ and Vale, S. Severn Trent Water, UK

Discussion and Round-Up

Exhibition and Networking

Break

MEMBRANES

BNR-MBR – Design and commissioning experience
Clark, A., Costain, UK

Membrane bioreactors – operating and optimisation
Smyth, M., Aqua Enviro, UK

Membrane Aerated Biofilm Reactor as a flexible, resilient and reliable solution for the upgrade of existing WWTPs: data from full-scale installations
Guglielmi, G., Houweling, D., Coutts, D., Ireland, J., Reeve, M., Peeters, J., Suez Water Technology and Solutions, Italy

Membrane Aerated Biofilm Reactor for side-stream treatment: let the anammox run wild
Coutts, D., Guglielmi, G., Houweling, D., Ireland, J., Reeve, M. and Peeters, J., Suez Water Technology and Solutions, Italy

Discussion and Round-Up

TECHNICAL SESSION 3	
CHEMICAL INVESTIGATIONS PROGRAMME	GRANULAR ACTIVATED SLUDGE
<p>Towards a more sustainable WINEP strategy Jeavons, J.¹, Jolly, M.² and Smith, C.¹, ¹Stantec, ²Yorkshire Water, UK</p>	<p>Commissioning aerated granular sludge – partly a bumpy ride? Wickens, D.¹, Smith, R.¹, Gomez, J.¹ and Nantumbwe, B.², Severn Trent Water, ²Stantec, UK</p>
<p>Supporting the water industry to meet WINEP obligations via the UKWIR Chemical Investigations Programme Brammer, J. and Thornton, A., Atkins, UK</p>	<p>Granular activated sludge – process commissioning experiences and learning form the new Nereda processes at United Utilities Shields, R. and Kenyon, J., United Utilities, UK</p>
<p>The National Investigations Programme – 2020- 2021 – Mechanisms for Removal Davies, S., Dai, Z. and Herron, D., Aqua Enviro, UK</p>	<p>Design development and start-up of an aerobic granular sludge SBR (Nereda™) under cold and weak wastewater conditions Johnson, B.¹, Tsotsos, M.², Black, J.³, Fox, E.⁴, Mansell, L.³ and Oliver, B.⁴, ¹Jacobs, USA, ²Jacobs, UK, ³United Utilities, UK, ⁴Royal HaskoningDHV, UK</p>
	<p>Nereda® package plants: a scaleable solution to meet P consents within PE of 500-2000 Kerstens, S., Navalho Pires Coelho, F., Oliver, B. and Cady, S., Royal HaskoningDHV</p>
<p>Discussion and Round-Up</p>	<p>Discussion and Round-Up</p>
<p>Join us in the 'Virtual Bar'</p>	

WEDNESDAY 14TH OCTOBER

KEYNOTE

The Big Picture of climate change: How the water industry can correct for the current failures in macroeconomic theory to address the physical basis of climate change

Stephen Palmer, Technical Director, Stantec, UK

TECHNICAL SESSION 4

TERTIARY NITROGEN REMOVAL BIOFILM SYSTEMS

Ammonia nitrogen (NH₃ + NH₄⁺) removal using aeration of Submerged Aerated Filters (SAF)

Baird, A.¹ and Lawrence, A.², ¹WPL Ltd, ²University of Portsmouth, UK

Operational experience of tertiary nitrification in MBBR

Bigot, B.¹ and Cannon, A., ¹Veolia Water Technologies, UK

Tertiary N and P removal with optimised continuous sand filters, an overview of long-term full-scale plant results

Al-Massri, F. and Wouters, H., BW Products, The Netherlands

Evaluating a demonstration-scale Revolving Algal Biofilm (RAB) treatment system for N and P recovery for small cities

Gross, M., Gross-Wen Technologies, USA

Discussion and Round-Up

Exhibition and Networking

PANEL DISCUSSION

Break

BIOLOGICAL NUTRIENT REMOVAL

Easy P-sy? Phosphorus 0.2-0.4 mg-Ptot/L in AMP6

Wickens, D. and Luck, R., Severn Trent Water, UK

Enhanced nutrient removal using HYBACS

Biddle, J., Bluewater Bio, UK

Cycle Activated Sludge Technology (C-TECH™) – What discharge values of total phosphorus can be achieved in a bioreactor without post-treatment? – A Case Study

Jabornig, S.¹, Doblinger, C.¹, Wutscher, K.¹ and Hazard, B.², ¹SFC Umwelttechnik GmbH, Austria, ²Trant Engineering Ltd, UK

The HIAS Process: Next generation biological nutrient removal

Saltnes, T. and Øfsti, A.T., Hias How20 AS, Norway

Discussion and Round-Up

TECHNICAL SESSION 5	
CARBON MANAGEMENT & SUSTAINABILITY	SIDESTREAM LIQUORS – NITROGEN REMOVAL
Delivering sustainable solutions through the AMP7 wastewater programme Knightbridge, J. and Nineham, N., Mott MacDonald, UK	Liquor Treatment – 25 years of AMTREAT® Bungay, S., Helix ECL, UK
UK water sector: from carbon management to net zero – how could we get there? Manidiki, M. and Depala, P., Mott MacDonald, UK	Commissioning and operation of the UK’s largest DEMON® deammonification liquor treatment plant Collin, C., Nayeri, S., Bhungara, Z. and Chan, T.F., Black and Veatch Ltd, UK
Delivering on net zero carbon in wastewater management: progress and prospects Bowman, B and Statham, A., United Utilities, UK	IFAS ANITA™ Mox Deammonification process for treating THP reject water: First full scale plants in operation and lessons learnt Bigot, B. ¹ , Lemaire, R. ² , Graveleau, L. ² , Veuillet, F. ² , Christenson, M. ³ , Nussbaum, B. ³ , Zhao, H. ⁴ , ¹ Veolia Water Technologies, UK, ² Veolia, France, ³ AnoxKaldnes, Veolia, Sweden, ⁴ Kruger Inc., USA
Water industry contribution to carbon capture and storage Hodkin, D., WRc, UK	Start-up and experiences with side-stream nitrogen removal at Amsterdam Airport Schiphol WWTP de Graaff, M.S. ¹ , Robinson, C. ¹ , Gerhardt-Meillink, P. ¹ and Meulenkamp, R. ² , ¹ Evides Industrierwater, The Netherlands, ² Sweco, UK
Discussion and Round-Up	Discussion and Round-Up
Exhibition, Networking and Posters	
Break	
TECHNICAL SESSION 6	
MODELLING	SIDESTREAM LIQUOR TREATMENT – PHOSPHORUS REMOVAL
Process models help to optimise a major upgrade of the largest plant in New Zealand Takacs, I. ¹ , Hauduc, H. ¹ , Morgan, S. ² , Brian, K. ² , Loughran, P. ³ and Murthy, S. ⁴ , ¹ Dynamita, France, ² WaterCare, New Zealand, ³ Stantec, UK, ⁴ NewHub, USA	Phosphorus recovery from sludge liquor at Peel Common wastewater treatment works Hossain, A. and Reynolds, P., Southern Water, UK

<p>Nitrogen and phosphorus mass balance investigation on four wastewater treatment works Dai, Z., Aqua Enviro, UK</p>	<p>Phosphorus discharge reduction, through recovery, utilising the Quickwash® process on various municipal wastewater treatment side-streams Godsey, A., The City of Perrysburg, USA</p>
	<p>Battling climate change using struvite as phosphorus crop nutrition van Spingelen, R. and Leatherwood, R., Ostara, USA</p>
<p>Discussion and Round-up</p>	<p>Discussion and Round-Up</p>
<p>Poster Award and Conference Close</p>	