

EUROPEAN **WASTE WATER MANAGEMENT** CONFERENCE
3 - 4 OCTOBER, THE ROYAL ARMOURIES, LEEDS, UK



TUESDAY 3rd OCTOBER

NUTRIENT REMOVAL AND RECOVERY

FilterClear - achieving ultra low phosphorus consent

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

Providing phosphorus removal for rural treatment works

Bowman, B. and Aboobakar, A., United Utilities, UK

Sustainable phosphorus removal with BOF steel slag and apatite: removal mechanisms and challenges

Fonseca, N.¹, Germain-Cripps, E.¹ and Jefferson, B.², ¹Thames Water Utilities, UK, ²Cranfield University, UK

1-STEP® filter: the solution for cost-effectively removal of P and other priority chemicals from WWTP effluent

Kramer J.F.¹, Menkveld H.W.H.², Cunliffe, T.², Merks, C.¹, ¹Witteveen+Bos, the Netherlands, ²Nijhuis Industries UK and Ireland, UK

GPS-X modelling to optimise nitrification and risk assess design proposals - case study of Brockhampton sewage treatment works

Ruswa, E.¹, Chadha, M.¹ and Copp, J.², ¹Severn Trent Water, UK, ²Primodal, UK

Nutrient removal with microalgae - reduction of the effluent concentration from wastewater treatment plant

Wawilow, T.¹, Hasport, N.¹, Theilen, U.¹ and Thomsen, C.², ¹THM - University of Applied Sciences, Germany, ²Phytolutions GmbH, Germany

Harnessing the power in nitrifying sand filters

Chan, T. F. and Koodie, T., Black & Veatch, UK

Advanced biocatalyst technology for tertiary nitrification: case study

Bobbio, J.¹, Martin, B.¹, Germain-Cripps, E.¹ and Nair, A.², ¹Thames Water Utilities, UK, ²Microvi Biotechnologies Inc., USA

Anammox for the treatment of liquors derived from thermal hydrolysis

Martin, B.¹, Germain- Cripps, E.¹ and Ochs, P.², ¹Thames Water Utilities, UK, ²Cranfield Water Science Institute, UK

Struvia – a cost effective technology for phosphorus removal

Bigot, B.¹, Bundagrad, E.² and Paillard, H.³, ¹Veolia Water Technologies, UK, ² KRÜGER A/S, ³Veolia

BIOCOS and inDENSE – Compact BNR with minimal electro-mechanical equipment

Wim de Mooij, H., Sweco, The Netherlands

Tertiary DAF combined with i-DOES for maximum removal of phosphorus from municipal wastewater effluent

Menkveld, H.W.H.¹, Broeders, E.¹, Mansell, L.², Fox, E.² and Tolman, M.¹, ¹Nijhuis Industries UK and Ireland, UK, ²United Utilities, UK

INNOVATION

A holistic review of innovative technology in wastewater treatment

Sunner, N.¹, Hardman, A.² and Germain-Cripps, E.², ¹eight2o, UK, ²Thames Water Utilities, UK

A holistic approach to delivering environmental and social benefits from innovation in the delivery of mine water treatment schemes

Crooks, J., and Moorhouse, A., The Coal Authority, UK

Practical application of modular off-site build: a commissioning perspective

Baird, A., WPL Ltd, UK

In at Deephams: combining technologies the key to high quality effluents

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

Chromium removal from municipal wastewater via chemical precipitation

Asghar, Q., Martin, B., Germain-Cripps, E., and Jarvis, S., Thames Water Utilities, UK

Photo-catalytic removal of organic pollutants from contaminated water- an overview

Yadav, O.P., CCS Haryana Agricultural University, India

NOVEL TECHNOLOGIES

Algae for sustainable, chemical free waste water treatment – an industrial approach

Murray, D., and Novoveska, L., Industrial Phycology, UK

Hybrid microalgae-activated sludge system for carbon-efficient wastewater treatment

Mohammed, K.¹, Ahammad, S.Z.², Sallis, P.J.³, Mota, C.R.⁴, ¹Bayero University, Nigeria, ²Indian Institute of Technology Delhi, India, ³Newcastle University, UK and ⁴Universidade Federal de Minas Gerais, Brazil

Development of graphene enhanced polyvinylidene fluoride (PVDF) membranes for contaminated water and wastewater treatment

Khayrullina, R.¹, Tizaoui, C.¹, Williams, P.¹ and King, M.², ¹Swansea University, UK, ²Haydale Ltd, UK

Smell the sea air – how marine tank cleaning technology is reducing odour pollution from dirty storm tanks

Zytnynski, I., The Spray Nozzle People, UK

Performance of a low pressure high output UV irradiation system for disinfection of stormwater

Campos, C.J.A.¹, Kershaw, S.¹, Lees, D.¹, Younger, A.¹, Udal, I.² and Till, D.³, ¹CEFAS, Weymouth Laboratory, UK, ²Environment Agency, UK, ³Southern Water Services, UK

CONTROL

Translating environmental data into operational value – systems for rapid response and preventative management

Kolominskas, C., EnviroSuite, UK

WEDNESDAY 4TH OCTOBER

PRELIMINARY TREATMENT AND FOG

A semi-quantitative survey of fat, oil and grease management in food service establishments

Cermakova, A., Villa, R., Jeffrey, P., and Jefferson, B., Cranfield University, UK

FOG for fuel

Curran, J., Kingspan Environmental, UK

Improvement of oil-contaminated wastewater treatment using enzymes

Kawaguchi, N., Nishida, K., Yoshimura, K., Richards, G., and Foley, E., Ochanomizu University, Japan

An innovative approach to reduce pumping station clogs and related maintenance

Miller, C., and Hornabrook, A., Smith Loveless Ltd, USA

Escalator screen performance & optimisation

Pavlov, V., United Utilities, UK

Quantifying the performance of grit removal and screens at sewage treatment works

Sentance, P., Germain-Cripps, E., and Sowky, N., Thames Water Utilities, UK

A comparison of grit removal technologies from a performance perspective

Hornabrook, A., and Miller, C., Smith and Loveless Ltd, USA

LOW-TOTEX SOLUTIONS TO MEET FUTURE GROWTH AND QUALITY DRIVERS

Low TOTEX technologies for growth drivers

Lewin, I., MWH, UK

Energy and carbon saving via optimisation of activated sludge plants

Sloper, M.¹, Jolly M.², Davies, S.², ¹Black & Veatch, UK, ²Aqua Enviro, UK

TOTEX modelling for optimising investment planning

Lewington, M.¹, Jones, S.², Olagoke, O.² and Gunaratnam, M.², ¹Thames Water, UK, ²MWH, UK

Assessment of energy savings from using rotating belt filters for the primary treatment of wastewater

Jarman, D., Barter, P., and Bokenkroger, M., Hydro International, UK

Low energy syphon dosing to improve trickling filters performance

Alvarez Moreta, E., Thames Water Utilities, UK

Liverpool WwTW SBR carbonaceous trial

Akinola, O., Black, J., Sherwood, A., and Hornsby, J., United Utilities, UK

Modular upgrade of an ASP to meet rapid population upsurge, new waste streams and tougher consents in the UK

Bassey, B.O., Coventry University, UK

Integrated constructed wetlands: performance & analysis

Hall, L., Woodward, D., and McDermott, R., Ulster University, UK

Innovations in constructed wetlands; meeting the needs of the water industry

Murphy, C., Hawes, P., and Cooper, D., ARM Ltd, UK

Capacity down pipe: comparisons with other sustainable drainage systems

Scholz, M., The University of Salford, UK

PRIORITY SUBSTANCES

Technical and commercial considerations in the removal of priority substances as specified within the EU Water Framework Directive from treated domestic sewage: case study from a 16,000 PE non-rural WwTp

Parocki, D., Nkrumah-Amoako, K., and Campen, A., Arvia Technology, UK

Priority water borne emerging contaminants: new technologies for treatment and removal

Butera, G., and Walport, E., Arup, UK

Enhanced estrogens degradation in activated sludge processes through flow optimisation

Garcia, T. C., Curtis, T.P., Mrozik, W., and Davenport, R.J., Newcastle University, UK

Advanced oxidation processes and non-thermal plasma for the removal of emerging contaminants in water

Tizaoui, C., and Ni, Y., Swansea University, UK

Investigating the persistence of an emerging contaminant in Johannesburg wastewater

Obidike, L. and Mulopo, J., University of the Witwatersrand, South Africa

YOUNG PROFESSIONALS AND STUDENT POSTERS

A semi-quantitative survey of fat, oil and grease management in food service establishments

Cermakova, A., Villa, R., Jeffrey, P. and Jefferson, B., Cranfield University, UK

Priority water borne emerging contaminants: new technologies for treatment and removal

Butera, G.¹ and Walport, E.², ¹Arup, Australia, ²Arup, UK

UV-Advanced Oxidation Process for Enhanced Bleaching of Waste Water Using composite ZnO-Co₂O₃

Al-Gubury, H.Y.¹ and A. Bennecer², ¹University of Babylon, Iraq, ²University of Northampton, UK

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On site landfill leachate treatment: investigations into economical and environmental sustainable systems for Northern Ireland

Devlin, Y.¹, Nicholl, G.¹, McRoberts, C.¹, Johnston, C.¹, Rosinqvist, D.², Svensson, B.M.³, Mårtensson, L.³, ¹Agri-Food and Biosciences Institute UK, ²Laqua Treatment AB Sweden, ³Kristianstad University, Sweden