



**2<sup>ND</sup> EUROPEAN WATER AND WASTEWATER MANAGEMENT  
CONFERENCE & EXHIBITION**

**29-30<sup>TH</sup> September 2008, Thinktank, Birmingham, UK**

**MONDAY 29<sup>TH</sup> SEPTEMBER 2008 (DAY 1)**

<b>ROOM 1 – Lecture Theatre</b>	
<b>WASTEWATER TREATMENT</b>	
<b>9.45 – 10.10</b>	<b>Wastewater Treatment Works Flows and Loads Optimisation in CFD</b> Robinson, C.M.E. and Ganeshalingham, J., MMI Engineering, UK
<b>10.10 – 10.35</b>	<b>The Wehrle 'lo-energy' Crossflow (sidestream) MBR</b> Robinson, T., Wehrle Environmental, UK
<b>10.35 – 11.00</b>	<b>Development and Application of a CFD Tool Applied to the Anoxic Zone Design</b> Wilson, R. <sup>1</sup> , Egarr, D. <sup>1</sup> and Burt, D. <sup>2</sup> , <sup>1</sup> Severn Trent Water Ltd, <sup>2</sup> MMI Engineering Ltd, UK
<b>11.00 – 11.20</b>	<b>Coffee Break and Exhibition (ThinkSpace)</b>
<b>11.20 – 11.45</b>	<b>Control of Active Biomass in Biological Wastewater Treatment Systems Through New Generation of ATP-Methods: Improving Effluent Toxicity Monitoring and Optimisation of Performances in Bioreactors</b> Delporte, C. <sup>1</sup> , Todorova, V. <sup>2</sup> and Raymond, M. <sup>2</sup> , <sup>1</sup> Ondeo Industrial Solutions, <sup>2</sup> Aqua-tools, France
<b>11.45 – 12.10</b>	<b>Development and Validation of a Multi-Configurable MBR Fouling Model</b> Janus, T. and P. Paul, Water Software Systems, Faculty of Computing Sciences and Engineering, De Montfort University, UK
<b>PLENARY SESSION</b>	
<b>12.15 – 12.35</b>	<b>Delivering Value Through Long-Term Asset Management</b> George Day, Head of Asset Strategy and Interim Director, Network and Regulation, OFWAT
<b>12.35 - 12.55</b>	<b>Deterioration modelling in Modern Asset Management Serviceability Modelling Integration of Unit Costs and Asset Serviceability Modelling</b> Clive Deadman, United Utilities
<b>12.55 – 13.05</b>	<b>Discussion and Questions</b>

13.05 – 14.05	<b>Lunch &amp; Exhibition (ThinkSpace)</b>
<b>ADVANCED TERTIARY TREATMENT</b>	
14.05 – 14.30	<b>Expanded Bed Technology for Biological Wastewater Treatment</b> Dempsey, M., Advanced Bioprocess Development Ltd and Manchester Metropolitan University, UK
14.30 – 14.55	<b>Use of Disc Filters in Tertiary Solids Removal</b> Barter, P., Hydro International, UK
14.55 – 15.20	<b>Metals Removal from Final Effluent using Virotec Filtration Media</b> Lowe, M., Aqua Enviro Limited, UK
15.20 – 15.40	<b>Coffee Break and Exhibition (Thinkspace)</b>
15.40 – 16.05	<b>Operation of Advanced Treatment Processes at Ilkeston STW for EDC Removal</b> Churchley, J. and Narroway, Y., Severn Trent Water Ltd
<b>INLET WORKS</b>	
16.05 – 16.30	<b>Screenings Handling Equipment – Solving Operational Problems</b> Spencer, C., JWC International, UK
16.30 – 16.55	<b>Inlet Works: Design Approach and Experiences in Yorkshire Water</b> Fell, C. and Green, S., Yorkshire Water, UK

<b>ROOM 2 - Brindley Room</b>	
<b>SEWERS AND DRAINAGE</b>	
9.45 – 10.10	<b>Contemporary Sustainable Drainage: Time for a Paradigm Change</b> Schofield, D., Arup, UK
10.10 – 10.35	<b>Sustainable Drainage Systems by Design; Threat or a Promise?</b> Roberts, C. <sup>1</sup> , Illman, S. <sup>2</sup> , and Puckmayr, J. <sup>2</sup> , <sup>1</sup> University of Gloucestershire, <sup>2</sup> Illman Young Landscape Design Limited, UK
10.35 – 11.00	<b>Implications for Treatment Processes and Networks Following Water Saving Initiatives</b> Prior, K. <sup>1</sup> , Machell, J. <sup>2</sup> , Boxall, J. <sup>2</sup> , Saul, A. <sup>2</sup> , <sup>1</sup> CookPrior Associates Ltd, <sup>2</sup> Pennine Water Group, University of Sheffield, UK
11.00 – 11.20	<b>Coffee Break and Exhibition (ThinkSpace)</b>
11.20 – 11.45	<b>Achieving Better Bathing Waters Through a Truly Integrated Multi-Catchment Approach in Barry, South Wales</b> Jones, J. <sup>1</sup> , Barcock, N. <sup>2</sup> , <sup>1</sup> JRJ Consulting and <sup>2</sup> Metoc, UK
11.45 – 12.10	<b>Low Cost Continuous Collection of Sewer System Condition Data</b> Cutting, J., Mouchel, UK

12.10 – 13.05	PLENARY SESSION (ROOM 1)
13.05 – 14.05	Lunch and Exhibition (ThinkSpace)
<b>WATER QUALITY POLICY</b>	
14.05 – 14.30	<b>Evaluating the Impact of Policy Formation on Implementation: The Case of Drinking Water Directive 80/778/EEC</b> Jenkins, J., University of Hertfordshire, UK
14.30 – 14.55	<b>Water Quality Monitoring and Modeling Studies to Support Resource Management Decisions</b> Evans, D.J. and Jones, V., Atkins Limited, UK
14.55 – 15.20	<b>Delivering Plans to Ensure Safe Drinking Water</b> Homewood, J., Atkins, UK
15.20 – 15.40	<b>Coffee Break and Exhibition (ThinkSpace)</b>
15.40 – 16.05	<b>Public Awareness Campaign For Natural Drinking Water in Ljubjana, Slovenia</b> Jamnik, B., JP Vodovod-Kanalizacija, Slovenia
16.05 – 16.30	<b>Balancing Levels of Service with Estimates of Source Yield</b> Piper, B., Atkins Water Resources Management, UK
16.30 – 16.55	<b>New Passive Sampling Device for Improved Monitoring of Drinking Water and Groundwater Resources</b> De Jonge, H. and Møller, M., Sorbisense A/S, Denmark
16.55 – 17.20	<b>Lotic eutrophication – Case Study of a Tropical River in Southeast Brazil</b> Cunha, D.G.F. and Calijuri, M.C., SHS/EESC/USP, Department of Hydraulics and Sanitary Engineering, University of Sao Paulo, Brazil
17.20 – 17.45	<b>Predicting the Impact of Projected Change in Agriculture by 2015 on the Likelihood of Catchments across England and Wales Meeting 'Good Ecological Status' for Sediment</b> Collins, A.L., Anthony, S.G., Turner, T., Hawley, J., ADAS, UK

<b>ROOM 3 – Lodge Room</b>
<b>FUTURE WATER: THE UK GOVERNMENT'S WATER STRATEGY</b> <b>9.45 – 12.10</b>
<p>Session organised by Dr. James O. Jenkins, University of Hertfordshire  <b>Chair: Professor Bob Breach</b></p> <p>Leading regulatory and industry practitioners are brought together to provide delegates with a unique opportunity to understand how the water industry and its regulators are responding to the UK government's water strategy. The session concludes with a panel led to discussion that offers delegates the opportunity to question guest speakers.</p> <p><b>The Regulator Perspective</b></p> <p><b>David King</b>, Director of Water Management (9.45 – 10.05)</p>

<p><b>Nick Ellins</b>, Head of Policy and Research, Consumer Council for Water (10.05 – 10.25)  <b>Dr. Cheryl Case</b>, Head of the Water Strategy Team, DEFRA (10.25 -10.45 )</p> <p><b>The Water Industry Perspective</b></p> <p><b>Richard Critchley</b>, PRO9 Water Supply Demand Manager, United Utilities (10.45 – 11.05)  (Coffee Break 11.05 – 11.20)  <b>Mike Pocock</b>, Head of Strategic Planning, Three Valleys Water PLC and Veolia Water (11.20 – 11.40)</p> <p><b>Regulators and Industry Together (11.40 – 12.10)</b></p> <p>Discussion led by Professor Bob Breach and Panel</p>	
<b>12.10 -13.05</b>	<b>PLENARY SESSION (ROOM 1)</b>
<b>13.05 – 14.05</b>	Lunch and Exhibition (ThinkSpace)
<b>SUSTAINABLE ENGINEERING</b>	
<b>14.05 – 14.30</b>	<b>Water Framework Directive: Sustainable Treatment Solutions to Achieving Good Ecological Status</b> Andrews, J. and Hobson, J., WRc plc, UK
<b>14.30 – 14.55</b>	<b>SEA Change or Just a Minor Ripple?</b> Davis, P. and Barker, M., Entec UK Ltd, UK
<b>14.55 – 15.20</b>	<b>Risk Management for the Revised Bathing Water Directive: How to Identify Failure Mechanisms and Management Strategies for Compliance</b> Dannatt, R., Franklin, S. and Saunders, A., Metoc, UK
<b>15.20 – 15.40</b>	<b>Coffee break and Exhibition (ThinkSpace)</b>
<b>15.40 – 16.05</b>	<b>Asset Management in the Context of Environmental Impact: Optimising Investment, Performance and Maintenance</b> Dannatt, R., Saunders, A. and Lester, J., Metoc, UK
<b>16.05 – 16.30</b>	<b>Feasibility Study on Grey Water Reuse</b> Jiang, J., Acheampong, B., He, Q., Balazs, T. and Bancroft, T., Faculty of Physics Science, University of Surrey, UK
<b>16.30 – 16.55</b>	<b>Upgrading Foul and Storm-Water Pumping Stations and Rising Mains in Extreme (Middle East) Conditions</b> Bottom, S. and Graham, H., Gutteridge Haskins and Davey Ltd, Australia

**TUESDAY 30<sup>TH</sup> SEPTEMBER 2008 (DAY 2)**

<b>ROOM 1 – Lecture Theatre</b>
<b>THE WATER FRAMEWORK DIRECTIVE – WILL IT IMPACT THE WATER COMPANIES?</b> <b>9.00 – 10.40</b>
<b>Chair – Tony Harrington, Head of Environment, Yorkshire Water</b>
<b>Where are we at with the WFD?</b> <b>Martin Booth</b> , Water Framework Directive Programme Executive, Environment Agency

<p><b>Is OFWAT considering the implications?</b>  <b>Kevin Ridout</b>, Interim Head of Quality Enhancement, OFWAT  <b>Anne Robson</b>, Senior Analyst, OFWAT</p> <p>Water Company awareness of the WFD  <b>Ruth Barden</b>, Environmental Scientist, Wessex Water  <b>Yvette De Garis</b>, Head of Environmental Strategy, Thames Water</p> <p>Facilitated Panel Discussion including above speaker plus  <b>Amanda Craig</b>, Major Project Manager – PRO9, Natural England,  <b>Simon Tait</b>, Professor of Civil Engineering, University of Bradford</p> <p>led by the Chair with audience involvement</p>	
<b>10.40 – 11.10</b>	<b>Coffee &amp; Exhibition (ThinkSpace)</b>
<p><b>CARBON FOOTPRINT &amp; ENERGY MANAGEMENT</b>  <b>Chair – Dr. Mike Keil, Head Climate Change Policy, OFWAT</b></p>	
<b>11.10 – 11.35</b>	<p><b>Calculating the Carbon Footprint of Wastewater Treatment Plants</b>  Hunt, P., Tze Yen, C. and Franklin, B., Earth Tech Engineering Limited, UK</p>
<b>11.35 – 12.00</b>	<p><b>Sustainable Environmental Projects – a bottom up approach</b>  Wilson, R., Pell Frischmann, UK</p>
<b>12.00 – 12.25</b>	<p><b>Comparing the carbon footprint of an Anaerobic Membrane Bioreactor Reactor (MBR) to other sewage treatment processes</b>  Jolly, M., Knight, G. and Strutt, J., Black &amp; Veatch UK</p>
<b>12.25 – 12.50</b>	<p><b>Nutrient Removal Versus Carbon Footprint Reduction in Wastewater Treatment: An Acceptable Balance</b>  Ifelebuegu, A., Severn Trent Water Ltd, UK</p>
<b>12.50 – 13.50</b>	<b>Lunch and Exhibition (ThinkSpace)</b>
<b>13.50 – 14.15</b>	<p><b>Energy Use and Carbon Footprint for Waste Water and Sludge Treatment</b>  Wall, D. and Holland, G., MWH Global, UK</p>
<b>14.15 – 14.40</b>	<p><b>Reducing Carbon Footprint by being Specific about Energy Saving</b>  Griffith, F., ABB Ltd, UK</p>
<b>14.40 – 15.05</b>	<p><b>Carbon Footprinting AMP4 Projects</b>  Black, J. and Rands, J., United Utilities, UK</p>
<b>15.05 – 15.30</b>	<p><b>Electricity Production, H<sub>2</sub> Generation and CO<sub>2</sub> Mitigation During Wastewater Treatment by a Modified Fenton Process</b>  Tokumura, M., Morito, R., Znad, H.T. and Kawase, Y., Research Center for Biochemical and Environmental Engineering, Department of Applied Chemistry, Toyo University, Japan</p>

<b>ROOM 2 – Brindley Room</b>
<p><b>ODOUR MANAGEMENT</b>  <b>Chair – Julie Jeavons, Principal Engineer, Mouchel</b></p>

<b>9.00 – 9.25</b>	<b>Emergence of Odour Standards for the Wastewater Sector</b> Hall, D., Entec UK Ltd, UK
<b>9.25 – 9.50</b>	<b>Odour Management – Taking it Seriously</b> Peirson, S., ADAS Environmental Group, UK
<b>9.50 – 10.15</b>	<b>Autonomous Odour Alert System</b> Mesbah, B. <sup>1</sup> and Micone, P. <sup>2</sup> , <sup>1</sup> Airfobep, <sup>2</sup> Odotech, France
<b>10.15 – 10.40</b>	<b>Development of Probabilistic Dispersion Modeling for Odour Impact Assessment from DCWASA Reuse site</b> Intarakosit, E. <sup>1</sup> , Baecher, G.B. <sup>1</sup> , Peot, C. <sup>2</sup> and Ramirez, M. <sup>2</sup> , <sup>1</sup> University of Maryland, <sup>2</sup> DC Water and Sewer Authority, USA
<b>10.40 – 11.10</b>	<b>Coffee and Exhibition (ThinkSpace)</b>
<b>NUTRIENT &amp; PHOSPHORUS REMOVAL</b>	
<b>11.10 – 11.35</b>	<b>Design Selection, Construction and Commissioning of Three Tertiary Denitrification Filter Systems for the Southern Water AMP4 Programme</b> Barnes, C., MWH Global, UK
<b>11.35 – 12.00</b>	<b>Actual Works Performance – Robust Design for WFD Consent Changes</b> Wickens, D., Severn Trent Water Ltd, UK
<b>12.00 – 12.25</b>	<b>Practical Experiences From Implementing Total Nitrogen Removal in the UK: Meeting the 10 mhN/l Standard with 4 Stage Bardenpho</b> Sunner, N., MWH Global, UK
<b>12.25 – 12.50</b>	<b>Implementing Nitrifying Sand Filters for Combined BOD and Ammonia Reduction: A Selection, Design and Performance Review</b> Chapman, P., MWH Global, UK
<b>12.50 – 13.50</b>	<b>Lunch and Exhibition (ThinkSpace)</b>
<b>13.50 – 14.15</b>	<b>Evaluation of Suitable Design Configurations for Enhanced Biological Phosphorus (EBPR) at Minworth WwTW</b> Pitt, S. <sup>1</sup> , Hale, C. <sup>1</sup> , Kaur, K. <sup>1</sup> , Vale, P. <sup>2</sup> And Wilson, R. <sup>2</sup> , <sup>1</sup> WatStech Ltd, <sup>2</sup> Severn Trent Water Ltd, UK
<b>14.15 – 14.40</b>	<b>Fermenting RAS to Improve Enhanced Biological Phosphorus Removal</b> Thomas, D., Severn Trent Water Ltd, UK

<b>ROOM 3 – Lodge Room</b>
<b>ENERGY EFFICIENCY AND CARBON EMISSIONS REDUCTION IN THE WATER INDUSTRY</b>
<b>9.00 – 10.40</b>
2005/2006 the water industry consumed 7,700 GWh of energy which accounts for 2% of total UK consumption; this presents an ever increasing burden for the industry, particularly as energy bills have doubled in the last 5 years. However, there area also substantial opportunities for energy saving, carbon emissions reduction and for the implementation of renewable and energy recovery technology.
Mouchel has carried out extensive work to look at novel ways of addressing some of the industry's largest

areas of energy consumption, such as pumping and activated sludge aeration. We are working with known techniques as well as providers of novel software and technology to provide optimum solutions for energy efficiency. In addition we are working with the industry to identify opportunities for embedded renewable generation, including small scale hydro and anaerobic digestion.

Some of the key areas for discussion include:

- Voltage optimisation
- Pump optimisation
- Process optimisation
- Small scale hydro
- Anaerobic digestion
- Biosolids processing

*Speakers : Fiona Griffiths, Martin Hall and Laurie Reynolds, Mouchel*

10.40 – 11.10	<b>Coffee &amp; Exhibition (ThinkSpace)</b>
<b>DRINKING WATER CONTAMINANTS</b>	
<b>11.10 – 11.35</b>	<b>NDMA and Other Nitrosamines in UK Drinking Water</b> Chen, Z. and Templeton, M.R., Department of Civil and Environmental Engineering, Imperial College, London, UK
<b>11.35 – 12.00</b>	<b>Survey of PFOS in Raw and Drinking Water Sources in the UK</b> McLaughlin, C. <sup>1</sup> , Hall, T. <sup>1</sup> , Kanda, R. <sup>2</sup> , Foster, J. <sup>3</sup> And Rumsby, P. <sup>1</sup> , <sup>1</sup> National Centre for Environmental Toxicology, WRc plc, <sup>2</sup> STL, <sup>3</sup> Drinking Water Inspectorate, UK
<b>12.00 – 12.25</b>	<b>Removal of Perfluorinated Compounds by GAC Treatment</b> Markall, B., Anglian Water Services, UK
<b>12.25 – 12.50</b>	<b>Manganese Removal in Potable Water Treatment – A Black Art</b> Robinson, P., Scottish Water, UK
<b>12.50 – 13.50</b>	<b>Lunch and Exhibition (ThinkSpace)</b>
<b>13.50 – 14.15</b>	<b>A Low Maintenance System for Removal of Iron and Manganese from Contaminated Groundwaters</b> Sapsford, D.J. and Williams, K.P., Cardiff School of Engineering, Cardiff University, UK
<b>14.15 – 14.40</b>	<b>Assessing the Service Life of Field-Spent GAC Using Rapid small Scale Column Tests (RSSCTs)</b> Kaur, K. <sup>1</sup> , Pitt, S. <sup>1</sup> , Porter, M. <sup>2</sup> and Wetherill, A., <sup>1</sup> WatStech Ltd, UK, <sup>2</sup> Yorkshire Water Services, UK

