

Autumn / Winter 2011

Volume 11 Issue 2

Points of interest:

- BSRIA
- Water droplets
- ICMGP Edinburgh 2013

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"Promoting the professional and scientific interests of members to safeguard the public interest in the application of chemistry in water-related industries."

In this issue:

- The Pennine Water Group.....2**
- Standardisation and ISO meeting in Korea**3
- Laying water pipes in contaminated land conference...4**
- Contamination emergencies: Managing the threats.....4**

Faecal Indicators: problem or solution? (FIPS): - Has technical progress reduced the need for faecal indicators?

6 – 8th June 2011 at the Edinburgh Conference Centre, UK

The above FIPS event went really well with 155 delegates from 28 countries with 29 presentations; 30 posters and 8 exhibitors. It was a really memorable event with many of the world's top environmental microbiologists and regulators present. Quite a few of the delegates had attended the previous event in Leeds back in 1995. There has been some really significant advances in the science since the 1995 event. Enthusiastic audience participation was evident throughout and all discussion sessions had to be curtailed owing to lack of time before the next session. This is the sign of a successful event.



The 2011 event was designed to address existing and emerging issues in environmental microbiology to assist in monitoring and modelling environmental systems to protect human health, animal welfare and environmental quality. Faecal indicator science still underpins much regulation world-wide, but new and exciting opportunities are rapidly opening up which offer challenging questions to both the science and regulatory communities. Various presentations and posters outlined how rapid culture and molecular analytical methods for indicators and most potential pathogens have advanced in recent years which now offer opportunities for near-real-time management information essential for public health protection at bathing and drinking water sites.

Microbial source tracking was also covered and offers a growing suite of tools to determine the sources of faecal indicators and, by inference, their potential health risk implications at exposure sites. Regulation of microbial flux and concentration has also undergone a sea-change with catchment-based regulation through the US Clean Water Act and the EU Water Framework Directive.

This international conference also featured two novel combative, provocative and engaging live debates examining the moral issues behind the statements "What is a coliform and are coliforms relevant to public health?" and "Do regulations help or hinder the innovation in testing methods?" Both discussions resulted in very lively and highly contentious debates with some very strongly held views expounded and defended. This was recorded and a comprehensive summary will be included in the event proceedings which will be published by the RSC.

It can be safely stated that delegates felt that this event was a great success, much was learned and many new contacts made.

K. Clive Thompson
ALcontrol Laboratories



Conference Dinner

BSRIA

In the second week of October BSRIA will publish an updated version of the Guide BG 29/2001 Pre-commission Cleaning of Pipework Systems, the first update since 2004. The guide contains some important changes and will cost £60 for non-members and £30 for BSRIA members. There is a special pre-launch price of £50/£25 until 21st October.

BSRIA is also offering a one day course on 23rd November 2011 in conjunction with publication of the revised Guide.

<http://www.bsria.co.uk/>

Water Science Forum

See us on myRSC...

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2011 all inclusive fee*

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* up to 3 interest groups included in RSC membership, each additional interest group £10 each

The Pennine Water Group at the University of Sheffield

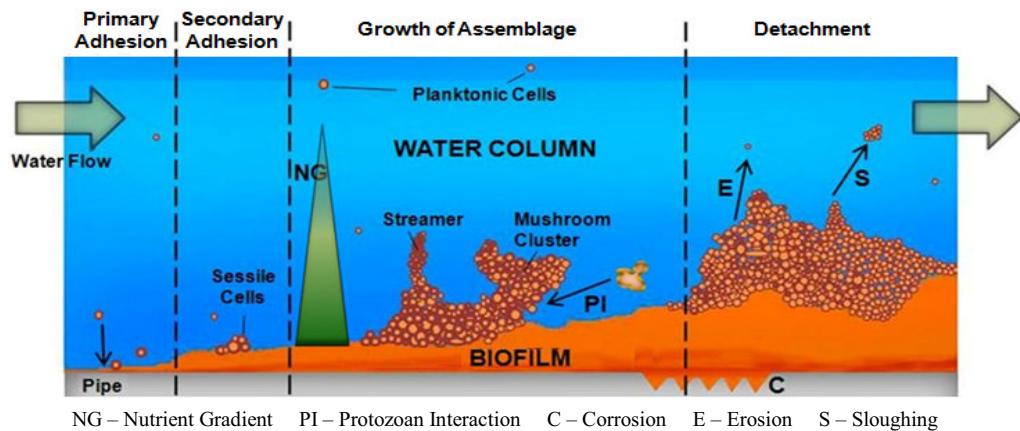
John Machell



The Pennine Water Group (PWG) is an Engineering and Physical Sciences Research Council ([EPSRC](#)) funded Platform Grant centre based at the Universities of Sheffield and Bradford. Our activities include fundamental and applied research, the implementation and dissemination of research outputs, and the provision of education and training.

The Group comprises academics from a broad range of disciplines including ecology, social sciences and economics in addition to engineering which has an active programme of research, ranging from theory driven fundamental research & numerical modelling to industry-led applied research and consultancy. We have strong links with a number of UK industrial and European partners, and our work is steered by an International Advisory Group. Our strategic vision is to develop from a multi-disciplinary to a trans-disciplinary group through closer integration with industry, and foster new inter-disciplinary research ideas in implementation and governance, sustainable system integration and development and implementation of new technology advances.

Crossing boundaries is the group's key strength, and we will facilitate the continued exchange of our research and perspectives. We see opportunities to better link mathematics to our engineering and to improve our understanding in bio, eco and human related engineering, asset management and sustainability of water services. Group remit is currently being widened to include the interactions of other types of service and infrastructure provision, such as energy and waste, with the water cycle and see new opportunities in utilising cyber-infrastructure for more effective and robust water system management. The Group strategy has been to adopt an holistic and integrated approach to improving the performance of urban water that spans disciplines and crosses international and institutional boundaries. The range of disciplinary expertise includes; engineering, economics, chemistry, microbiology, computer science and the social sciences. Our activities include fundamental and applied research in science and engineering and the dissemination and practical implementation of research outputs. Of note is our research in [Flood Risk Management \(FRMRC Consortium\)](#), [Synthetic Biology](#), [Microbiology in Urban Water Systems \(MUWS\)](#) and '[Pipe Dreams](#)' which addresses the challenge to transform the operation and management of buried water distribution system infrastructure by maximising performance to meet the combined impacts of climate change, increasing societal demands for water quantity and quality and changing population densities into the 21st Century and beyond.



Our MSc in Urban Water Engineering and Management combines the wide range of applied science, environmental engineering and management disciplines represented in this field. [The programme of study](#) is a balance of technical, theoretical and practical aspects designed to provide the best preparation for a rewarding career. Module content is leading edge, drawing inspiration from research conducted within the [Pennine Water Group](#) and elsewhere. Instructors are world recognised UK and international experts from both academic and industry backgrounds.

The group Management Team includes [Professor Adrian Saul](#) (Director), [Dr Catherine Biggs](#) (Research Impact), [Professor Joby Boxall](#) (Industry Liaison) and [Professor Simon Tait](#) (Research Strategy).

[PWG Webpage](#)

[University of Sheffield](#)

Standardisation and ISO Meeting in Korea

Gavin Mills

The importance of standardisation in the operation of analytical laboratories in the field of potable and wastewater testing is particularly evident in respect of the requirement for analytical services to be subject to UKAS accreditation to ISO 17025. There is also a need to agree certain procedures at an international level as more legislation is being directed from a global, or at least European level such as the Water Framework Directive. To support the interests of stakeholders in the UK, experts representing various specialist aspects of analysis and sampling attended an international meeting of ISO Technical Committee 147 in the Republic of Korea, on the island of Jeju from May 23rd to 28th 2011. Delegates representing chemical methods and sampling included Richard Allan (Scottish Water), Ian Barnabas (Northumbrian Water), Gavin Mills (Severn Trent Services), Clive Thompson (Alcontrol), and Tim White (Marquis & Lord)– all of whom are serving or former committee members of the Water Science Forum.



International meetings take place every eighteen months and on this occasion, standards were progressed in areas ranging from “Glyphosate & Ampa by LCMSMS”, “VOCs by SPME GCMS”, “Chloroalkanes”, “PAH & GCMS”, “Discrete Analysis” and water quality sampling. In addition to progressing standards in these areas, the five days of meetings provided useful information upon specific aspects of these procedures and also networking opportunities with experts in their respective fields. Much of the information obtained will be of use as additional parameters are added to EU Directives and national regulations. An important meeting in the area of sampling will lead to the inclusion of UK lab data in ISO 5667-3 and thereby allow for longer storage times for certain organics parameters prior to analysis. The meeting concluded with an agreement to meet again in Paris during 2012 and to combine this with the European standards body meeting in this area (CEN Technical Committee 230) – the joint meeting being a result of activity related to the Water Framework Directive.

Jeju is a volcanic island and a major holiday destination in the region, particularly popular with honeymooners! The climate is temperate/sub-tropical, although the delegates enjoyed almost constant rain and temperatures below 20C. The conference dinner was hosted by the Korean Standards Agency, KATS, whom were very hospitable and also provided a fascinating insight into Korean culture. On the way back home, even the sun shone and the UK delegation were able to enjoy a stroll around the garden at Incheon airport before the flight back to the UK.



Volume 11 Issue 2

Water Droplets:



“water is the most abundant molecule on the earth’s surface and one of the most important molecules to study in chemistry”

“water resource issues can only be addressed by scientists, engineers and policy makers working together.”

Professor Tony Allan

Come to Edinburgh in 2013

...and find the answers to all your mercury questions!



20th July-2nd August 2013



2013 will see the Sixth of the ICMGP Biennial Mercury Meeting. Given this is a scientific meeting, most time will be given to the requirements for mercury reduction into health, environment and society, and with these understandings, this may present a significant challenge.

The conference aims to provide a forum for the exchange of information on mercury in the environment and its effects on health and the environment.

The 5 day conference will continue with parallel sessions and invited speakers covering all areas and aspects of mercury research from basic, individual, and community, environmental and social science perspectives.

The conference will be accompanied by the largest ever exhibition of mercury-related organisations, including commercial companies, government agencies, NGOs, and other scientific organisations.

There will also be public outreach activities to help bridge the gap between those that know and those that need to know.

Please join us!

www.mercury2013.com

Tel: +44 (0) 1727 858840 • Email: info@mercury2013.com

**The Newsletter of the
Royal Society of Chemistry
Water Science Forum**

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The views expressed in the newsletter are those of the authors and do not necessarily represent the views of the RSC, the Water Science Forum or the author's organisation

Alan Tetlow Bursary

In memory of Alan Tetlow the Water Science Forum bursary will help post graduate students or young professional water scientists during the first 10 years of their career.

Contact: Hon Sec,
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Sustainable Water

The proceedings from the WSF organised Sustainable Water seminars held at IUPAC are now available from RSC Publishing.

<http://www.rsc.org/Shop/books/series/12.asp>

Edited by R E Heuer and B M Harrison
Sustainable Water



RSC Publishing

Laying Water Pipes in Contaminated Land Conference

Richard Allan

The WSF hosted a conference at the University of Strathclyde on the 23rd July 2011 in conjunction with the David Livingston centre for sustainability and the society of chemical industry on the subject of laying water pipes through potentially contaminated land. The United Kingdom Water Industry Research (UKWIR) has recently published new guidance on the subject and BCI has recently reviewed BS10175 Code of Practice on Site Investigations. Angus Turner from United Utilities presented on the changes in approach outlined in the UKWIR guidance document from a practitioners perspective. Mike Shepard from Thames Water was the UKWIR lead on the development of the guidance document and he took us through the history of the document, the water industry and the regulatory requirements and the application of the guidance in practise. Following on from this we heard from Matt Bower, Drinking water Quality Regulator, Scotland, on the importance of protecting the water supply from contamination. This was supported by a presentation from Margaret McGuiness, Scottish Water's Public Health manager on the importance of protecting public health from both chemical and microbiological contamination. The day was rounded off when we heard from Alison McKay on the principle changes to BS10175.

WATER CONTAMINATION EMERGENCIES CONFERENCE NUMBER 5: MANAGING THE THREATS

John Gray

WCEC5 will be held at the IWW Water Centre, Muelheim an der Ruhr, on 19th-21st November 2012. This fifth conference, "Managing the Threats" follows on from four previous successful international Water Contamination Emergencies conferences: Can we cope? (March 2003); Enhancing our response (June 2005); Collective responsibility (April 2008); and Monitoring, understanding, acting (October 2010). Committee members include Dr Ulrich Borchers of IWW Water Centre and Professor Bill Keevil of the University of Southampton. Principal sponsors are the SCI, IWW, and the Royal Society of Chemistry and support is being given by RWE Aqua, RWW, and the Mülheim Water Award. The conference is being co-organised with SecurEau.

Papers are invited for both speaker presentations (15 + 5 minutes) and posters. They should relate to drinking water with particular emphasis on effectively and efficiently managing the threats, sharing learning experiences, risk management, effective use of leading-edge technologies and best practice both now and in the future. Papers will be considered for inclusion by the Programme Committee.

Abstracts should be submitted to the Secretariat and full details of the conference and an abstract template are available at the Website www.WCEC5.eu. Abstracts for Oral presentations should be submitted by 19th May 2012 and for posters by 19th September 2012. All oral and poster presenters will be required to write a full paper for inclusion in the conference proceedings, to be completed by the start date of the conference. The Royal Society of Chemistry will publish proceedings after the event.

The conference is aimed at public health professionals, water companies, regulators, risk and business continuity managers, emergency planners, service and support providers, detection equipment suppliers, disaster recovery specialists, water security experts, and water distribution modellers.

This international conference will feature a relevant trade exhibition, a conference dinner at the Municipal Hall (which will incorporate the Mülheim Water Award prize-giving), a poster exhibition and a drinks reception.