

Member Newsletter

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Lured South**



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quality programme**



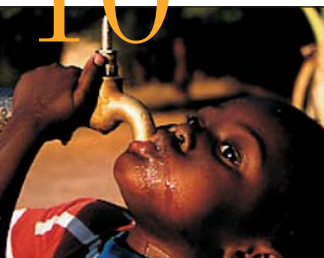
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INTRODUCTION FROM EXECUTIVE DIRECTOR, PAUL REITER

Climate change...

These words used to conjure up an image of conflicting messages and uncertainty, to no small degree because of the position of the US Government.

Facts have now overtaken both uncertainty and rhetoric. The impact of climate change is being seen and felt – from unprecedented rates of ice melts in both the Arctic and Antarctic regions to increasingly violent equatorial storms to attenuated flood and low water patterns and finally to unprecedented drought conditions as seen in Australia. Recent reports prepared by the IPCC confirm the scale of the problem we are facing. And the message is clear – it is your mission, as a water professional, to help think through the myriad of impacts that climate change will likely have on your customers. As Professor Richard Alley from Penn. State University, one of the authors of the latest IPCC report has said,

"This is real, the ball's in your court".

If you are a utility director this is clear – because your customers are the end users in a long chain of research, application and delivery.

However, if you are anywhere upstream of direct service, for example, research, education, manufacturing and consulting, the duty is equally clear and compelling – start to think about how your knowledge and expertise could positively affect the complex set of issues associated with water resources, water supply, wastewater treatment, urban drainage and basin management in the context of climate change.

Fortunately, IWA started early in preparing for this outcome, and is now one of the leading organizations in the world on how the water community should cope with this challenge. Mark Beuhler, Henk Van Shaik, Holger Hoff, Pavel Kabat and others helped pioneer the early programming of this issue at the IWA 2002 World Water Congress in



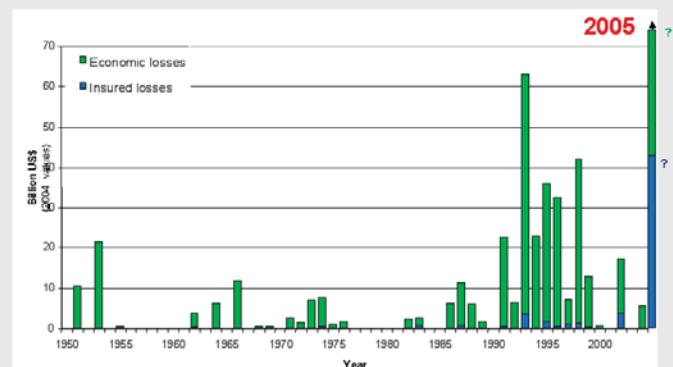
Melbourne. At that time, we were still talking about climate change as it related to water as an "if", rather than as a "how". We are now talking about the how, with the recent Australian drought experience as one of the most prominent case studies in the world.

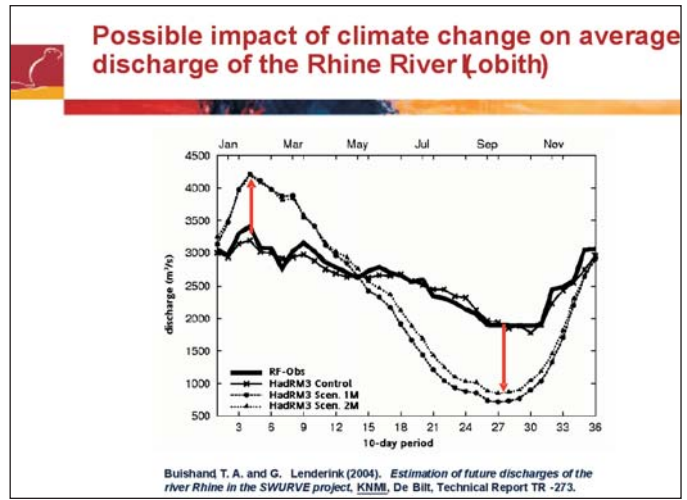
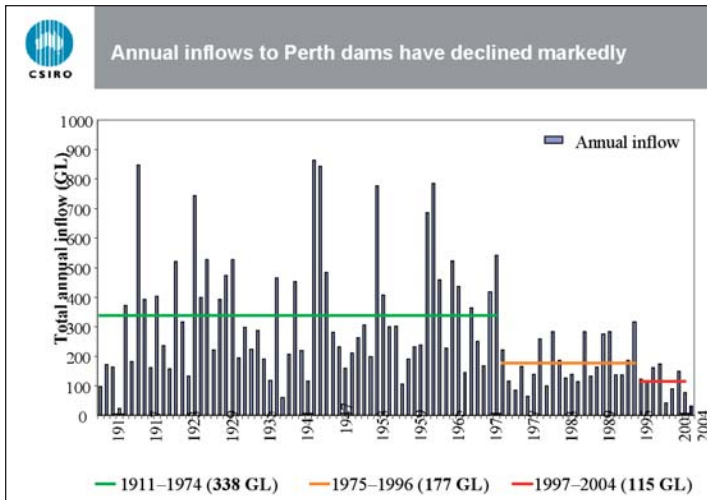
Resilience is a key concept in addressing this new set of challenges. To find resilient solutions, we will have to change our approach to problem solving from one of a deterministic framework (we know the problem and can engineer a single solution) to one of a probabilistic framework (we have to anticipate a variety of outcomes, both in terms of the problem and in terms of technologies, and need to engineer multiple solutions whose implementation will depend on circumstances as they arise).

Another way of describing this change is moving from single-source solutions to minimizing risks through a portfolio approach. As the late Gary Meinke of Water Corp in Perth said, the future is about "Security through Diversity".

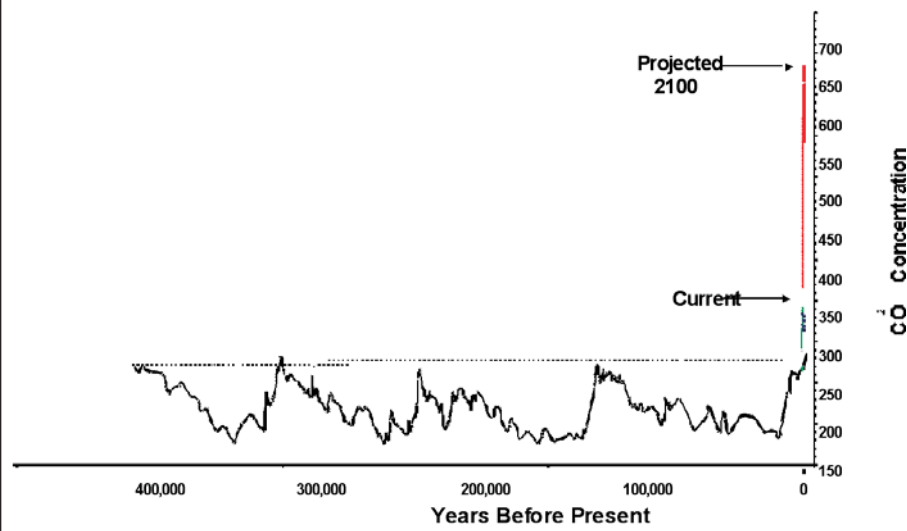
IWA will all have an important role in responding to climate change, in activities ranging from research to utility operations. In 2006, an IWA Specialist Group was formed with the help of our Netherlands members to assist in this process. This group, called

**Great Flood Catastrophes 1950 – 2004
Economic and insured losses**





Unprecedented CO₂ Change in History of Our Species



"Climate Change and Adaptation"* is intended to provide a vehicle for all of us to contribute to meaningful solutions to this immense challenge. The first conference organized by the IWA Specialist Group on Climate Change and

Adaptation, occurred in September, 2006 as part of Aquatech in Amsterdam. Two days of practical discussion on the challenges and potential solutions to the impact of climate change on water management resulted in the

foundation of a rich knowledge-base that we can build on over the years to come. This conference also complements an important collection of practice-oriented case studies undertaken by AWWA Research Foundation in conjunction with IWA and UCAR titled: "Climate Change and Water Resources – A Primer for Municipal Water Resources (the proceedings are available through IWA Publishing).

We are truly at the beginning of a new era of thinking about how to solve traditional problems in light of climate change. Learn more about the problem and get involved in thinking through our adaptation in your area of expertise. I am confident that you, as IWA's members – after all, "the best of the best" – will play a leading role in crafting solutions to meet these challenges. As Goethe said, "Whatever you can do, or dream you can, begin it. Boldness has genius, power and magic in it." Be bold!

*You can contact the Specialist Group leader of Climate Change and Adaptation, Mr. R R Kruize at rr.kruize@quicknet.nl

Graphs courtesy of John Langford (Melbourne U-AU), Eberhard Faust (Swiss Re-CH), Rob Vertessey (CSIRO-Aus), Gertjan Zwolsman (KIWA-NL)

IWA Deputy Director Tom Mollenkopf Returns to Australia

By Paul Reiter

On behalf of IWA, I am at the same time both sad and pleased to announce Tom Mollenkopf's return to Australia as the Australian Water Association's new Chief Executive in April, 2007. Sad, of course, because Tom's return to Australia means that IWA is losing a valued member of the management team in London. Over the past two years, Tom has contributed in many ways to the management of the London office and to the development of new systems together with the delivery of many important programmes.

In this context, I am of course glad to welcome Tom back to the IWA Family in a new capacity – as Chief Executive of the Australian Water Association, an important partner and ally

to IWA in many key areas of water management. Tom will succeed Chris Davis, a long time friend to both IWA, and its predecessors, IWSA and IAWQ.

As Tom says: "The CEO role at AWA is an extremely exciting one and that gives me the opportunity to provide leadership in the Australian Water Sector at a time when it has unparalleled importance on the national agenda.

Although Tom leaves big shoes to fill, IWA must nonetheless move forward in replacing them. Accordingly, IWA is seeking expressions of interest for the position now occupied by Tom and will announce over our member communications network a timeline and application details for this position by the end of February.



Speaking for the London office, we will miss Tom but will envy him always for his new (actually, restored) life close to the beach and in the sunshine "down under". Thank you Tom for your contributions to IWA!

Highlights from the Board of Directors Meeting, 12-13 December 2006, Vienna, Austria

Beijing congress

The IWA World Water Congress that took place in Beijing, China 10-14 September 2006, was acknowledged as successful both organisationally and financially. The exhibition was sold out, associated costs were below budget and over USD 1 million was raised in sponsorship.

Membership

The Board of Directors of Directors authorised IWA HQ to implement a review of IWA Governing Member Committees to ensure that they are fully active and compliant with the conditions of the IWA Governing Member By Laws.

IWA Regional reports

ASPIRE:

A meeting was held in collaboration with representatives from the various countries in the ASPIRE region in Singapore on 8th December 2006. At that meeting it was decided that IWA Singapore will support IWA to open an office within the 'Waterhub' which is a centre for research and development, trading, and hosting international programmes. The Office's objectives will be to work with the countries in the region; provide a platform for local representation and a focus for work on water and development particularly with SEAWUN as well as with the Asian Development Bank.

Africa:

UN-HABITAT Water Operators Partnership has been launched. This initiative was started during 2006 with the aim of providing a mechanism to connect all water utilities from around the world. The idea will be to build on existing networks and organisations and IWA will therefore be a key partner in this initiative. The next convening mechanism in Africa will be a meeting convened by IWA-ESAR (East and Southern Africa Region)

Global Development Solutions:

The IWA Development programme roll out is underway and a project portfolio exists that includes engagement with regional associations and initiation of solidarity funding mechanisms. IWA remains physically distant from underdeveloped member markets hence a focus on regional presence. IWA Reference Centers will provide an important mechanism for IWA to increase its presence in those regions through member recruitment, member engagement (events, projects) and publishing opportunities. The first IWA Reference centre has been set up in Mexico in partnership with (Universidad Nacional Autonoma de México) and discussions are ongoing centers in Africa, South Asia and South East Asia.

The next meeting of the IWA Board of Directors of Directors will take place 17-18 March 2007 in South Africa.

FT Special Report on Business & Water

Publication Date: Thursday 22 March 2007

Copy Date: Thursday 8 March 2007

We have been made aware that the Financial Times is preparing a special report on Business & Water, which assesses the impact and business opportunities related to the scarcity of water on business globally and provides practical advice and best practice for companies in response to the worldwide Water crisis. The FT report will also provide case studies, reviewing company programmes from around the world and across all sectors to provide examples of best practice from the world's leading companies, as well as major NGO initiatives, projects and partnerships.

The report will be published in conjunction with the International Business Leaders Forum, the international non-profit organisation that works with global companies to promote responsible business practices in the communities in which they operate. Here are as follows some of features provisionally included

in the report:

- 1) Politics of water
- 2) Business of Water
- 3) Water in the Country
- 4) Water in the City
- 5) Pollution: the China Question
- 6) Unlocking the Sea
- 7) Hydroelectricity
- 8) Climate Change
- 9) For Pleasure and Leisure
- 10) Opinion Column

While IWA do not actively endorse this report we thought to bring it to the attention of our members as a source of information on the industry we operate in.

For further information about the FT special report on Business & Water, please contact:

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New IWA Programme Committee

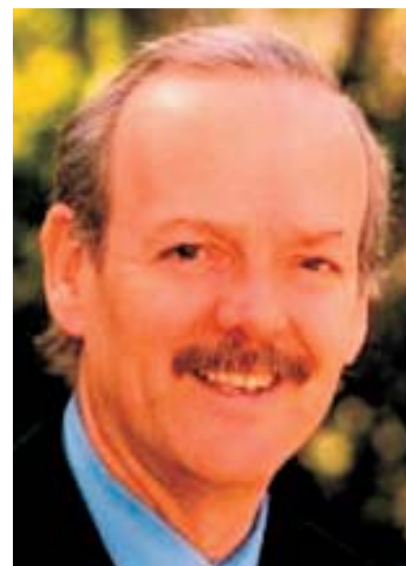
The IWA Programme Committee is responsible for developing (and ensuring the quality) of the scientific and technical programme for Congress. It has a secondary responsibility to review and approve proposals for all Association-branded events (specialised and regional conferences, workshops and symposia). The previous committee was together for 4 years and worked hard to ensure the success of the Marrakech 2004 and Beijing 2006 Congresses. However, as we move forward into Vienna 2008 and Montreal 2010, a new committee has been formed to ensure good geographical representation and technical expertise of the full range of subject matter addressed by the Association and discussed during a World Water Congress. The first meeting of the committee will be in London on 1-2 March 2007 when the Call for Papers and basic structure of the Vienna Congress will be finalised.

- Rhodes Trussell, USA
- Paul Reiter, Ex Officio as IWA Executive Director
- David Garman, Ex Officio as IWA President

The 2007-2008 Committee is as follows:

- Helmut Kroiss, Austria (Chair)
- Norbert Jardin, Germany (Vice-Chair)
- Akissa Bahri, Ghana
- John Batten, USA
- Don Bursill, Australia
- Yves Comeau, Canada
- In Kim, Korea
- Jacques Labre, France
- Gerard Luyet, Switzerland
- Yang Min, China
- Takashi Mino, Japan
- Bruno Nguyen, France
- Dayanand Panse, India
- Regina Sommer, Austria

Congratulations!



Don Bursill was recognised for his work on water quality research and resource management in the South Australian, Australian Day Honours.

Don was awarded a Member of the Order of Australia, AM.

On behalf of all of IWA we congratulate Don on achieving this award.

Drinking Water Quality Programme

IWA: An International Authority on Drinking Water Quality

The IWA Drinking Water Quality Programme is a concerted effort to position IWA as an international authority on drinking water quality. The programme is orientated to support three broad actions:

- **Research and Innovation** – Disseminating the latest developments and supporting researchers with the provision of resources
- **Implementation** – Supporting implementation of innovative strategies to manage drinking water quality effectively
- **Management and Practice** – Advocating best practice and 'tried-and-tested' management strategies

Such a strategy seeks to bridge the gap between research and practice through the transference of innovations into practice and to ensure that research is targeted and relevant to meet the needs of end-users.

Key Activities

The Bonn Charter for Safe Drinking Water is the cornerstone of the Programme. The Charter identifies the key principles in managing drinking water effectively and describes the roles and responsibilities of the various stakeholders

"The Bonn Charter is a useful policy document from the perspective that it establishes a set of universal principles for achieving safe drinking water."

– Recent online discussion forum participant

involved in the provision of drinking water from catchment to consumer. To support the dissemination of the Charter, a series of articles describing each of the principles called the Bonn Principles Series are published on a regular basis in Water 21 and online.

To facilitate further discussion of the Charter and associated issues related to drinking water quality, a number of online discussion forums are planned, the first of which on institutional arrangements concluded in January. A synthesis of this discussion is available on the IWA website now.

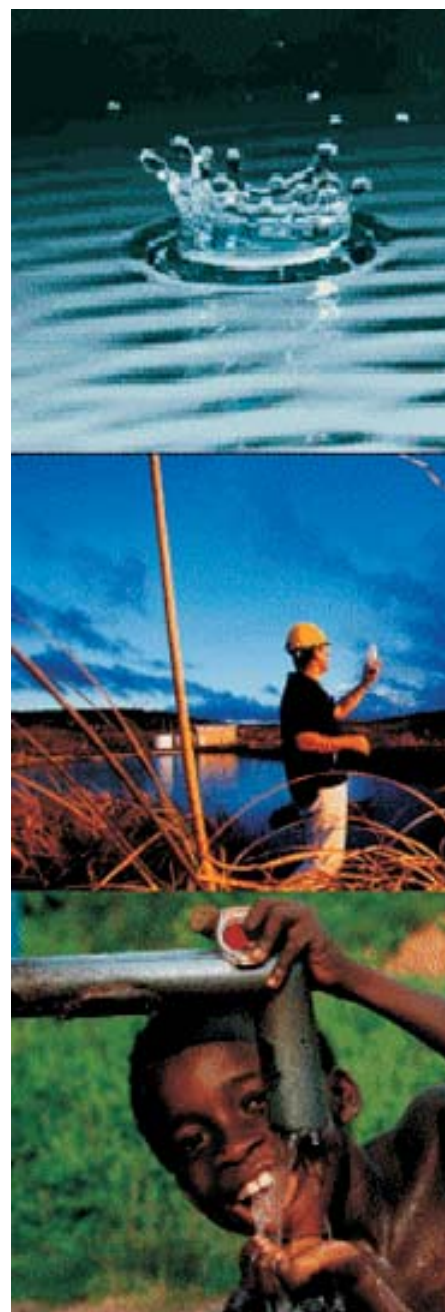
Membership Engagement

There are a number of ways for IWA members - individual and corporate - to become involved and participate in the Drinking Water Quality Programme:

- **Participate in Online Discussion Forums** – April 2007: The Price of Water. To coincide with the publication of the latest Bonn Principles article, an online discussion forum will look at water pricing.
- **Join the Bonn Network** – A new IWA network to support utilities in the implementation of the Bonn Charter, including water safety plans.
- **Add your Research Project to Our Global Listings Directory** – A global list of ongoing research projects related to drinking water quality

More details about the Bonn Network can be found in our Utilities Feature on page 6.

For further information please visit the IWA website or contact Tom Williams (tom.williams@iwahq.org.uk)



Global Sanitation Taskforce – Sanitation 21

Sanitation: Progress and Prospects

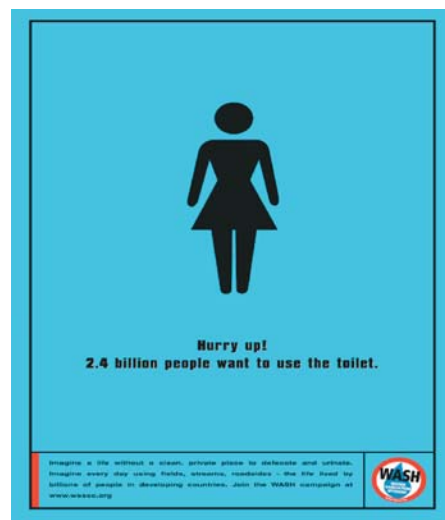
At any given time, half of the developing world's population are sick from the same cause: morbidity linked to poor or inadequate water and sanitation provision. The lack of functioning excreta management facilities and systems is one of the key contributors to this worldwide disease burden. Yet still 2.6 billion people lack access to basic sanitary facilities.

As an Association, IWA has a key role to play in addressing this immense challenge. Its current portfolio of work, which engages members worldwide, focuses on a range of levels - strategic, policy, research and lobbying based. Highlights include:

- Continuation of the Sanitation 21 task force, placing emphasis on a more mature debate

around sanitation options, the boundary conditions between options and more effective urban planning.

- Working with the UK government's Department for International Development (DfID) in supporting the drafting of technical inputs to a new sanitation policy for the Department.
- Facilitating a network on the non-technical aspects of sanitation, with particular reference to the use of marketing techniques to stimulate consumer demand.
- Acting as a consortium member in an EC funded 'Coordinated Action' project focused on sustainable sanitation in Africa (referred to as NETSSAF).
- Preparing plans for the International Year of Sanitation, 2008, in cooperation with a loose partnership of like minded organizations. Activities include participation in events, lobbying, research and advocacy initiatives.



Members who would like further information about any of the above activities should contact the London office focal point for the above, Dr. Darren Saywell, by telephone on +44 20 7654 5542 or by email at darren.saywell@iwahq.org.uk

60 second interview – Michael Storey

Dr. Michael Storey Chair, IWA Young Water Professionals Programme

Project Manager, Sydney Water Corporation. Sydney 2000 Australia.

Dr Michael Storey was appointed Chair of the IWA Young Water Professionals (YWP) Committee in January 2007. As Chair of this committee, Michael's role is to oversee the development and implementation of the YWP Programme. Michael is also a member of the IWA Strategic Council and as Chair of the YWP has a role on the IWA Board of Directors. This is the first time that YWPs have been represented on the IWA Board and demonstrates a clear commitment of IWA to its next generation of leaders.

Michael has been a member of IWA since 1999, and is a member of IWA Specialist Groups on Health-Related Water Microbiology, Water Reuse, Biofilms and Water Safety. Michael is currently employed as a Project Manager at Sydney Water Corporation, where he manages a portfolio of public health related projects, with an ongoing interest in water recycling. Since completing his PhD at the University of New South Wales in 2002

Michael worked as a post-doctoral researcher at the Swedish Institute for Infectious Disease Control in Stockholm, as well as the Commonwealth Scientific and

Industrial Research Organisation (CSIRO) in Sydney. Michael includes amongst his research interests, biofilms and microbial ecology, public health microbiology and microbial risk assessment.

What do you consider to be the most significant recent change in your field of expertise to have occurred in the last 10 years?

In my opinion, the most significant change has been the development of the Framework for the Management of Drinking Water Quality. This approach has revolutionised the way that operators manage water safety and has shifted the paradigm from numerically-driven compliance to whole of system (catchment to tap) performance. The Framework promotes the increased awareness of a comprehensive, preventative multi-barrier strategy for drinking water quality management within a risk framework. The Framework is documented in the Bonn Charter and adopted by the WHO Guidelines for Drinking Water Quality. Originally developed for drinking water systems, the Framework now fundamentally underpins local (Australian) guidelines for drinking, recreational and recycled waters.

What do you consider to be the most significant future challenge that the water industry must deal with in the next 10 years?

To fulfill the present and future needs of the water and wastewater industry requires the continuous development of a workforce that is both adequate in size, capable in skills and strong in leadership. On current trends, approximately half of the water industry workforce in the developed world will retire within the next 5-10 years.

During the 60's and 70's, rapid expansion and growth of many public utilities and the water sector saw the seeding of today's industry leaders. In ensuing decades, rationalisation of utility sector workforce, an inability to

attract and retain talent and lower percentages of students enrolling in science and technology disciplines has created an industry poorly equipped to meet future demands of leadership and operational competency.

The aim of the Young Water Professionals Programme is to nurture the next generation of young water professionals and assist the global water industry in the recruitment and retention of talented individuals. Moreover, the YWP Programme provides a global network for career development opportunities for YWPs as well as a forum to meet and communicate with peers and the wider water community.

In developing nations, increasing urbanisation and provision of adequate sanitation and safe drinking water remains a critical humanitarian challenge. Both as professionals working in the water industry and IWA members we share an obligation to assist in this regard. As an initiative of the YWP Programme, we aim to develop a work area that increase the dialogue between young water professionals working in developing and industrialised nations, so as to create not only a forum for exchange of ideas but also skills through an exchange programme.

Whom do you consider to be the leading expert in your field, outside of your own organisation, and why?

It is very difficult to choose one individual, there being so many. When I think of persons who have changed the way that we look at biofilms and microbial ecology, names such as Kevin Marshall and Staffan Kjelleberg immediately come to mind. I was fortunate that both worked in the School of Microbiology at the University of New South Wales during my undergraduate studies, and both sparked my interest in these disciplines.

When I think of advances in my other research interests, public health microbiology and microbial risk assessment, it is hard to go past names such as Chuck Gerba and Joan Rose, who have revolutionised these fields. It would be remiss of me not to mention my PhD supervisor, Professor Nicholas Ashbolt, who first ignited my passion in these disciplines and has been a tremendous reservoir of knowledge and valuable mentor in my career to date.

Which report, product or service from your organisation deserves more attention and why?

If I can consider the IWA YWP Programme for a moment, I would like to increase the profile of, and gain greater participation in our online discussion forums. During the YWP programme at the IWA Beijing congress held last September, the YWPs were fortunate to participate in an interactive forum with the Council for Distinguished Water Professionals (CDWP),



focusing on career options, and their visions for the global water sector.

During that forum and subsequent online discussions, Council members shared with the young professionals lessons learned in their professional life, turning points in their career, as well as the important role that YWPs play in the future of the IWA. In addition, regarding their role in providing strategic direction to IWA, the CDWP have made a commitment to the next generation of water professionals, and have stressed the importance of intergenerational dialogue to meet the future challenges of the water sector.

In what ways would you like to see IWA change in the next 5 years?

I would like to see the percentage of Young Water Professionals within the IWA double during the next five years. Actually this is a goal that I have addressed to the YWP Committee and myself during my two-year term as Chair. The IWA has been very proactive in recent years in promoting the importance of the YWP Programme, though we need to address initiatives that not only recruit new young members but retain them. At present the retention rate of student members is around 68%. I would like to see this figure increase to 100%. Although this is probably a little ambitious, a figure of around 80% would be preferable. The retention of full individual members is currently around the 85% mark.

Special interests...

I have a number of special interests; the most obvious of these being my strong commitment to the Young Water Professionals Programme. On the research side, I have developed an increasing interest in sensor technology and its application to biosecurity and the rapid detection of microbial pathogens and other emerging contaminants.

What are the key fracture points

– issues of conflict or debate in your specialist area?

Within my specialist areas of water reuse and risk assessment, the issue of (indirect) potable reuse remains a point of division in my country and abroad. If I focus on local issues for a moment, climate change and variable rainfall combined with a currently unsustainable use of water has put in place water restrictions in many parts of Australia. Addressing the sustainable use of water is one of the greatest research challenges currently facing our nation, and issues such as desalination and water recycling have created emotional debate and unprecedented interest in the media and at all levels of government.

Forthcoming news of interest...

Over the last few years we have seen the YWP Programme build from strength to strength, culminating in a number of successful national and international conferences as well as workshops at IWA World Water Congresses in Marrakech and Beijing. In January this year, and with thanks to the tireless efforts of Adrian Puigarnau, the team at IWAHQ and the YWP Committee, we re-launched the IWA Programme, with four key working areas; connecting people, career development, sector support and programme development.

The first major milestones of the YWP Programme in 2007 will see the launch of a pilot mentoring programme, publication of the bi-annual YWP Newsletter as well as the production of a support package for national YWP conferences. In 2007 we are keen to introduce new initiatives to the YWP Programme including a work area for YWPs in developing countries that will facilitate greater dialogue and the possibility of an exchange programme. Over the next twelve months we also aim to raise the profile of the YWP and Programme Development Awards and increase the recruitment and retention of YWP members to the organisation.

One of our key objectives is to significantly

increase the number of national YWP conferences. In recent years we have had outstanding national events in United Kingdom, Germany and Australia. During the next two years the YWP Committee is keen to see this initiative expand into other member countries. Additionally, there are several exciting YWP events this year including ASPIRE in Perth and national YWP conferences in Germany and the United Kingdom. As you can see the next twelve months will be an exciting time for the YWP Programme!

Career defining moments...

By far and away the greatest impact on my career was the opportunity to work overseas. After completing my PhD in early 2002, I was very fortunate to be offered a three-year post-doctoral position by Professor Thor-Axel Stenström at the Swedish Institute for Infectious Disease Control. During my time in Sweden I was able to forge many close personal and professional relationships and was given the opportunity to present my research at international conferences throughout Europe, North America and Africa.

To work in another country and to learn another culture has been an invaluable experience, and a defining moment in my life, at both a personal and professional level. I strongly urge any young water professional to leave their comfort zone (if only temporarily) and consider the challenge of working abroad!

Contact points

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IWA Utilities

There are two exciting opportunities for Utility members to become involved and benefit from their IWA membership – the Bonn Network and Benchmarking Customer Service.

The aim of the Bonn Network is to stimulate sectoral engagement in implementation of the Bonn Charter through creation of a network of excellence in its implementation. IWA seeks to develop and manage a network of 'first adopters' for the IWA Bonn Charter under the guise of IWA's Drinking Water Quality Programme. In adopting the Charter, utilities will make a commitment to assume the roles and responsibilities and adhere to the key principles as described in the Charter. In support, a self-assessment tool to assist water utilities in their

progression toward the good governance of safe drinking water that is promoted in the Charter. The network will be maintained on a subscription basis, costs that will be used to manage communications and develop a self-assessment tool with which water utilities can measure their progress towards implementation.

The Customer Service Process Benchmarking project is open to utilities only; no consultants or regulators may participate. No public report is issued; the results are intended for the benefit of participants alone. There will be a generic 'industry' report that is issued to all participants but will not disclose individual performance. Each participant will also receive a personal report that shows where they sit in the

peer group and outline specific improvement opportunities. The methodology used in this project is designed to deliver an understanding of best practices within the peer group. It is a learning tool and therefore if a utility feels it still has to do more work to reach 'top of class' this is the perfect place to do it without fear of public exposure. A detailed briefing to take place in London on Thursday 8 March at an Orientation Workshop for participants and will offer the last opportunity to join this particular project.

For more information on both of these opportunities see the IWA Utilities section of the IWA website.

IWA Specialist Groups

Specialist Groups form the basis of IWA and are important vehicles for all "water people" interested in interactions on scientific, technical and management topics throughout the world. The groups, formed as coalitions of individuals around subjects of common interest, provide a sound structure of networks for international specialists to share knowledge, information, skills, and make good professional and business contacts.

For a full list of IWA's specialist groups, their

objectives, activities and open meeting minutes, please view the IWA website - <http://www.iwahq.org.uk/template.cfm?name=groups>.

To take advantage of this networking opportunity, and become a member of any specialist group (or change your group membership) simply contact the IWA membership department (members@iwahq.org.uk) and tell us which groups you would like to join.

We are delighted to inform you that alongside the 10th IWA Specialised Conference on "Design, Operation and Economics of Large Wastewater Treatment Plants" (<http://lwtp07.tuwien.ac.at/>) the IWA Task Group on "Good Modelling Practice - Guidelines for Use of Activated Sludge Models" will be organising a course on Modelling Activated Sludge Plants from 14-15 September 2007 in Vienna, Austria.

The course provides detailed instruction on mathematical models, their structure and use in practice and on control in activated sludge plants, and ample hands-on opportunity to use these models in a class-room setting. The course is limited to 25 persons on a first come first serve basis. Details on the course fee and registration will be available on the conference website (<http://lwtp07.tuwien.ac.at/>) in due time.

This issue of the newsletter features the activities of five IWA Specialist Groups active in the following areas:

- Advanced Oxidation Processes
- Assessment Control of Hazardous Substances in Water
- Instrumentation Control and Automation
- Off Flavours in the Aquatic Environment
- Systems Analysis and Integrated Assessment

Advanced Oxidation Processes

Advanced oxidation processes are widely used for water, wastewater and sludge treatment, and also as a part of integrated processes. Recently, they have gained particular attention for the removal of trace pollutants and for promoting water recycling and reuse. Nonetheless, several aspects are yet to be studied and understood, concerning both fundamentals (chemical models, reaction pathways, reactor design) and application (innovations towards more economical processes and process combinations, comparison with alternative non chemical processes). Indeed, AOPs in water applications are sure to be a challenge for the future.

In short, AOPs SG activities are aimed at:

- bringing forward the most recent advances in the fundamentals as well as development and application;
- disseminating new achievements and identifying future research and development needs by a strong co-operation between scientists, engineers, operators and decision makers.

AOP Conference, Goslar, May 2006.

The main periodical public event convened



The scientific committee, who worked hard on evaluating more than 150 papers. Each paper evaluated by three independent experts.

by our SG is the AOP specialised international conference. The last one (AOP4) was held at Goslar, Germany in May 2006 and was attended by 180 delegates from 39 Countries. Approximately 150 abstracts were submitted to the Scientific Committee and 136 were accepted for oral or poster presentation. A number of selected papers will be published in a special issue of Water Science and Technology. Contributions were grouped under the following topics: fundamentals, by-products, process combination, application, Fenton process, removal of recalcitrant and anthropogenic micropollutants (special topic), photocatalysis.

AOPs specialised conferences offers a forum in which current and upcoming issues are discussed using state of the art and future perspectives, in the field of both research and practical applications. AOPs workshops were also convened during other international conferences (e.g. World Water Congress, in Marrakech, September 2004).

The next specialised conference (AOP5) will be held in 2009. Efforts of future activities of the AOPs SG are aimed at: promoting linkages with

other IWA SGs (members of other Specialist Groups are already involved in our AOP conference Programme Committee); establishing a newsletter editor team for preparing newsletters of Group activities and developments; preparing guidelines for correct use of AOPs.

For further information on AOPs SG please visit the IWA website at: http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633915 or contact the Chair Prof. Dr.-Ing. Michael Sievers, CUTEC-Institut GmbH, Germany, michael.sievers@cutec.de, or the Secretaries Dr. Achim Ried (Industry), WEDECO AG, Germany, achim.ried@wedeco.net, Prof. Eng. Giorgio Bertanza (University), University of Brescia, Italy, giorgio.bertanza@ing.unibs.it

Assessment Control of Hazardous Substances in Water

This group addresses the problems of monitoring/measuring of environmental contaminants, predicting their fate and effects, and relating such data to the optimisation of control systems and strategies. Issues of environmental contamination from a global perspective are also examined, drawing on the diverse specialist areas of IWA's membership. The Group provides a forum whereby engineers, hydrologists, chemists, ecologists and environmental toxicologists can interact and address issues of mutual concern.

Micropollutants in the environment – what are the targets?

Many international studies have reported the occurrence of micropollutants such as pharmaceuticals, biocides, fluorinated compounds or ingredients of personal care products in wastewater, surface water, sediments, soils, and groundwater and even in drinking water. Many of these compounds show hazardous effects in wildlife including adverse endocrine effects. Some of the environmental concentrations might be of minor relevance, but we still do not know enough to set environmental targets. The upcoming Micropol and Ecohazard Conference 2007 will deal with the emerging research in the fields of environmental chemistry, drinking and waste water management, reuse technologies, ecotoxicology, as well as regulations and measures to minimize hazards for biota and humans. Additionally, one part of the conference will focus on the emerging issue of nanotechnology related to industrial applications and environmental implications.

The joint Micropol and Ecohazard conference organised for the first time in 2007 by DECHEMA and IWA will provide an international platform for representatives of the chemical industry to discuss with drinking water and wastewater engineers, environmental chemists, water managers, hydrogeologists and ecotoxicologists the effects of micropollutants

and hazardous substances in water systems and to find technical possibilities for their removal.

The 5th IWA Specialised Conference on Assessment and Control of Micropollutants / Hazardous Substances in Water from 17 - 20 June 2007 has been organised as a joint conference between IWA ACHSW group and DECHEMA e.V. at DECHEMA-House, Frankfurt am Main/Germany

For more information on the group or conference, contact the group's Chair: Prof. Maria Furhecker: maria.fuerhacker@boku.ac.at Vice Chair Prof. Andrea Schäfer: andrea.schaefer@ed.ac.uk and/or Secretary Auguste Bruchet: auguste.bruchet@suez-env.com, or you can go to the groups webpage at: http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633907

Instrumentation, Control and Automation

This group seeks to provide a forum to exchange methodologies and experience internationally on all aspects of sensor technology, instrumentation, control and automation (ICA) for water and wastewater treatment and transport systems.

ICA, often perceived as the hidden technology, is found in nearly all systems related to water supply and wastewater management. You will find ICA-related articles in many other specialist groups' conferences and certainly the IWA Biennial Congresses. The members in this group have a very diverse background and expertise, and you are warmly invited to join the group and to participate in and benefit from its activities.

The SG organises quadrennial conferences, with the first back tracked to 1973 in London and Paris and the most recent one in 2005 in Busan, Korea. In recently years, the ICA SG started sponsoring a new series of conferences known as AutMoNet (Automation in Water Quality Monitoring), with the forthcoming one just around the corner (September 5-7 2007, Gent, Belgium).

Control methodology for water and wastewater systems has evolved steadily in the last 30 years. The benefit of ICA has been very well demonstrated and the focus in the coming decade is expected to be an even wider uptake of the technology across the water and wastewater sector. The integrated operation of transport and treatment systems will almost surely be a focus of the ICA development.

The SG in the last few years published three IWA Scientific and Technical Reports (Nos 7, 11 and 15), and is providing on-going strong support to the IWA Task Groups on Benchmarking Control Strategies for WWTPs (<http://www.benchmarkwwtp.org/>) and on Good Modelling Practice (http://www.modeleau.org/GMP_TG/).

Upcoming events:

- 3rd IWA Conference on Automation in Water

Quality Monitoring (AutMoNet2007), September 5-7, 2007, Gent, Belgium,

- Two-day course on control practice in wastewater systems during the IWA Vienna World Congress (details to be announced), Sept 2008.
- 10th IWA Quadrennial ICA Conference, June 14-17, 2009, Cairns, Australia.

For more information you can contact the group's chair Dr. Zhiguo Yuan (zhiguo@awmc.uq.edu.au) and/or the Secretary Dr. Henri Spanjers henri.spanjers@wur.nl.

Visit the group's webpage at: http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633925

Off Flavours in the Aquatic Environment



This group aims to understand how off-flavours in the aquatic environment are produced, treated analysed and controlled; and applications to drinking water, wastewater, and aquatic environments, such as lakes, rivers and estuaries. The effect of the off-flavours to fish and other wild-life are also explored. The Group has a symposium every four years.

IWA Symposium on Off-Flavours in the Aquatic Environment VIII

The IWA Specialist Group, Off Flavours in the Aquatic Environment, oversees an international symposium every three years. The first symposium was in Finland, in 1982. Currently, the Specialist Group is chaired by Dr. Djanette Khiari (American Water Works Association Research Foundation, USA) and its secretary is Gary Burlingame (Philadelphia Water Department, USA). Recent symposia were held in Ontario, Canada; Barcelona, Spain; and Paris, France. About 100 people, with 40 presentations from around the world, attend.

The next IWA Symposium on Off-Flavours in the Aquatic Environment VIII will be held on October 5-10, 2008 in Daejeon City, South

Korea. It will be hosted locally by the Korean Society on Water Quality. The chairman of the International Host Organizing Committee is Dr. Hang-Sik Shin (Professor, Korea Advanced Institute of Science and Technology). The chairman of the Programme Committee is Dr. Byung-Uk Bae (Professor, Daejeon University).

Off-flavours and off-odours are recognized by the water community worldwide to be major causes of consumer complaints and a loss in confidence of drinking water safety by the general public. Such problems arise by natural and anthropogenic means. Algae are a common cause of naturally produced off-flavours. Industrial discharges and spills have caused anthropogenic odours. Off-flavour concerns are also seen in fish tainting and bottled water. Finally, the off-odour cycle of research takes us into wastewater and biosolids in order to understand how and why they are formed. Despite considerable research over the past twenty years, many issues remain unresolved. This Symposium provides specialists and interested participants from water suppliers, academic institutions, research centers, and industry a forum to share their latest findings on the causes, origins, mitigation and management of off-flavours in natural waters, drinking waters and related systems.

Djanette Khiari: Dkhiari@awwarf.com is the Chair and Gary Burlingame: gary.burlingame@phila.gov serves as Secretary for the Specialist Group. For more information please visit the group webpage at: http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633861

Systems Analysis and Integrated Assessment

The Specialist Group on Systems Analysis and Integrated Assessment might more properly be called the "Generalist Group." Indeed, the group focuses on general approaches to solving a wide range of water-related problems within an interdisciplinary framework that relies a lot on different types of models. While methodology-focused, the group's interest extends to applications, of course, but is not restricted to any single discipline; we deal with problems in wastewater treatment and water supply, and surface-water and ground-water systems.

The first part of our charter—solving problems—leads us to explore such disciplines as systems analysis, simulation, mathematical modeling, control, optimization, time-series analysis and forecasting, and decision analysis and support.

The second part of our charter—integrated assessment—brings all aspects of a problem together, and it is particularly concerned with such issues as the social and economic impacts of solutions to these problems.

The Specialist Group was formed in 1984 at a small workshop in London. We returned to London in 1987 for our first full-fledged conference, "WATERMATEX"—the word being coined from water, automation, and exhibition.

We are currently en route for WATERMATEX 2007, to be held May 7 through 9, 2007, in Washington, DC. Our call for papers yielded a strong response and a full programme of papers and posters is posted at the conference web site, www.watermatex2007.org.

The conference has been organised to allow maximum interaction and discussion among the attendees, and you are herewith cordially invited!

The other activities of the Specialist Group include sponsoring Task Groups. The River Water Quality Model No1 published by IWA in 2001 is the result of such work. We are currently sponsoring two new task groups: one on "Good Modeling Practice" (http://www.modeleau.org/GMP_TG/) and one on "Benchmarking of Control Strategies for Wastewater Treatment Plants"

(<http://www.benchmarkwwtp.org/>).

News on the Specialist Group is available on the group web site (<http://www.ensic.inpl-nancy.fr/iwa-saia/>) and our semi-annual newsletter, available on the IWA Specialist Group web pages.

http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633855

IWA Conferences and Events

Water Framework Directive Implementation - Measures, Costs, Institutions & Communications

1-3 May 2007, Dublin, Ireland

In an effort to coordinate and compound the knowledge and expertise currently developing to meet these challenges within and amongst Member States, Ireland is hosting a three-day conference on implementing the WFD from 1st to 3rd May with IWA and Engineers Ireland acting as joint main sponsors. The first River Basin Management Plans required by WFD in 2009 are now clearly on the horizon and all EU Member States are currently in a critical consensus building period pursuant to these Plans being adopted as open, transparent, holistic and integrated statutory documents to guide us in all aspects of water resource management into the foreseeable future. This will require compelling science, stakeholder engagement and commitment, effective public consultation, accountability and resource and institutional assignment and in this regard the Conference will address current best practice and the necessary checks and balances via top-down and bottom-up approaches in both the development and implementation of the Plans.

Email: info@conferenceorganisers.ie

Website: www.wfdimplementation.eu

Customer Connection

14-16 June 2007, Maastricht, the Netherlands

The customer is the central topic at the first IWA European Utility Conference for the water supply and sanitation sector. Traditionally, water supply and sanitation companies have been technically focused and attention to customers has been neglected in many countries: customers were regarded as connections with a number and not as the reason for the water companies' existence.

To better serve their customers, many companies make use of sophisticated technologies and software such as online metering, Customer Relations Management (CRM) and Voice Response. However, improved

customer service aims not only to improve customer satisfaction, but also to maintain or to improve customer trust in the water supply and sanitation.

The goal of this conference is that water professionals take up the challenge to establish are real 'customer connection'.

The proposed themes are:

- Customers and claim culture
- Customers: tariffs and the need of a regulator
- Customers: safety and risk management
- Customers and health
- Customers and climate change
- Customers and technology
- Customers: globalisation and Millennium Development Goals (MDG's)
- Customers: financial issues and marketing

Email: info@moorga.com

Website: www.moorga.com

Sequencing Batch Reactor Technology

7-10 April 2008, Rome, Italy

After Munich 1996, Narbonne 2000, Noosa (Queensland) 2004, the next SBR Technology Conference will be organised in Roma, Spring 2008.

The proposed subjects are:

- Fundamental studies for periodic processes
- Mathematical modelling and process control
- Nitrogen removal processes – design and operation
- Biological phosphorus removal
- Granular biomass development
- Industrial wastewater treatment
- Case studies
- Novel approaches
- Production and use of storage products
- Anaerobic processes
- Novel Applications
- Application of periodic processes in manufacturing
- Case studies – Domestic and Industrial

Email: sbr4abstract@irsa.cnr.it

Website:

www.sbr4conference.com/background.htm

Marine Waste Water Discharges and Coastal Environment

27-31 October 2008, Dubrovnik, Croatia

It is a pleasure to announce that MWWD Conference's series is continuing towards the 5th issue, to be held in 2008. As in our previous events, we have been evaluating where to go. We have received proposals to move to other continents and other seas; nevertheless we have preferred to remain, at least once more, around the Mediterranean.

Nothing is certain in life, but I am confident that the preliminary agreements with the Croatian partners will enable us to organize a successful 5th MWWD in Dubrovnik late October 2008. Our contribution to the health of marine waters may seem small, if compared to the ongoing global efforts to protect the world environment, however every study or experience may add a significant nugget to the common efforts.

I invite all colleagues to start to think to their participation, knowing however that situations evolve day by day and that the best laid plans may change.

Email carlo.avanzini@mwwd.org

Website: www.mwwd.org

DEADLINES

31 March 2007 for submission of abstracts for 11th Diffuse Pollution Conference and 1st meeting of Diffuse Pollution and Urban Drainage (26 – 31 August 2007, Belo Horizonte, Brazil)

Contact: Eduardo@desa.ufmg.br

30 April 2007 for submission of abstracts for IWA conference on Biofilm Technologies (8 - 10 January 2008, Singapore)

Contact: cvivanov@ntu.edu.sg

30 April 2007 for submission of abstracts for the 14th international symposium on health-related water microbiology (9-15 September 2007, Tokyo, Japan)

Contact: watermicro2007@env.t.u-tokyo.ac.jp



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Swissotel The Stamford, Singapore
3-6 June 2007

Conference Sessions and Workshops

First Day Sessions

- New Advances in the Fundamental Science of Water and Wastewater Technologies
- State of the Art in Water and Wastewater Technologies

Drinking Water Sessions

- NOM Removal
- Membrane for Water Treatment
- Nano Technology in Water Treatment
- Advanced Oxidation for Drinking Water

Wastewater Sessions

- Membrane Bioreactors
- Nutrient Removal and Recovery
- Energy & Wastewater Treatment
- Capturing the Energy & Value from Wastewater & Sludge
- Technologies for Biosolids Management

Workshops

- What the Future of Technology needs to Bring for the Production of Drinking Water from Alternative Sources
- Controlling NOM Fouling on Membranes
- Future and Sustainability of Wastewater Treatment
- Future Challenges for MBR Treatment

LEADING-EDGE



Registration Enquiries

LET-2007 Organising Committee
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Email: **info@iwa-let2007.com.sg**

Exhibition Enquiries

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Tel: **+31 653162094**
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Membership news

2007 Membership Renewals

IWA would like to thank all our members who have already renewed their membership for 2007. By all accounts the 2007 Renewal process is going extremely well!

By the end of December 2006, IWA had already renewed membership records for 2,144 individuals and 160 corporates.

These are mainly members who have:

- Taken out the multi-year option
 - Renewed after receipt of the 1st reminder
- At the same point in 2005 the same figures

were 2,035 for individuals and just 65 for corporates. At the time of writing, the number of active members has risen significantly to 3,259 for individuals and 251 for corporates!

Membership of IWA entitles you to the following benefits:

- Water21 - membership magazine (6 issues)
- IWA Yearbook (to be published June 2006) and access to Online Members Directory
- Specialist Group Membership - any number of groups.
- Discount on IWA conference, workshop and seminar registration fees
- Discount on IWA Publishing Books (25%)

- Membership Newsletter
 - Discount (25%) on Water Intelligence Online and Pay-per-view journal articles
- If you have not yet renewed your membership for 2007, you can renew online at the following link:
<https://www.portlandpress.com/iwa/membership/renewal.cfm> alternatively, please contact iwamembership@portland-services.com or members@iwahq.org.uk

Ensure that we have your correct contact details at all times. Please update any changes at <https://www.portlandpress.com/iwa/membership/change.cfm>.



2006 year end membership update

Membership figures for 2006 reported an increase over the prior year for both individual and corporate members.

The figures for corporate members were notably higher than previous years and IWA experienced a growth of 16% for corporate members in 2006- the highest recruitment levels for corporates seen in the past seven years!

There was an increase in our membership base in the following low income countries: Bulgaria, China, Hungary, India, Iran, Malaysia, Namibia, Serbia & Montenegro, Slovenia, South Africa, Swaziland, Sri Lanka, Taiwan and Vietnam.

IWA Governing Members

A new year is ahead of us and the Membership Team at IWA HQ has started working to make it even more successful than 2006. All active Governing Members have received a 2006 membership report for their country, with figures for both individual and corporate membership, and for most of them the numbers increased.

We have also asked our Governing Members to help grow our membership base in their own countries by finding new ways to promote IWA activities. We are sure that your efforts and cooperation will go a long way in helping IWA achieve our goals for 2007 and we look forward to working more closely with you throughout 2007.

As a reminder for all the active Governing Members, you will soon receive the invoice for your 2007 Governing Member fees. As deliberated during the Governing Assembly at the Congress in Beijing they will remain unchanged from 2006.

New Corporate Members 2007

Since our last newsletter in December 2006, we have welcomed 7 new corporate members into our network. Their expertise and knowledge will give further strength to the wealth of knowledge already found within our network of members.

- **EMVIS Consultant Engineers, Greece**

www.emvis.gr

- **PD Pal Jaya, Indonesia**

www.paljaya.com

- **Sam Research AG, Czech Republic**

www.sam-group.com

- **Ilifa Africa Engineers, South Africa**

www.ilifa.biz

- **Wastewater Management Authority, Mauritius**

www.wma.gov.mu

- **Jalur Cahaya Snd Bhd, Malaysia**

- **NSW Department of Health, Australia**

www.health.nsw.gov.au

Making the most of IWA

Did you know that you could have access to all the presentations that have been given at Young Water Professionals Workshops?? Through them, the young water professionals can obtain tips on how to get their job published, how to get (more) involved in the IWA, or even how to organise a National Young Water Professional Conference!!

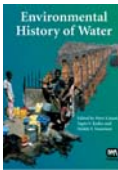
To obtain this information, please visit Young Water Professionals Programme>Career Development>Workshops

News from IWA Publishing – www.iwapublishing.com

We are delighted to bring you news of FIVE NEW BOOKS from IWA Publishing:

* Environmental History of Water *

Global views on community water supply and sanitation



Editors: P Juuti, T Katko, H Vuorinen

Cross-sectional and historical intra-national and international comparisons have been recognized as a valuable method of study in different sectors of human life, including technologies and governance. Environmental History of Water fills this gap, with its main focus being on water and sanitation services and their evolution. Altogether 34 authors have written 30 chapters for this multidisciplinary book which divides into four chronological parts, from ancient cultures to the challenges of the 21st century, each with its introduction and conclusions written by the editors. The authors represent such disciplines as history of technology, history of public health, public policy, development studies, sociology, engineering and management sciences.

ISBN: 1843391104 · January 2007 · 640 pages · Hardback
IWA Members Price: 1843391104

* Urban Water Resources Toolbox *

Integrating Groundwater into Urban Water Management



Editors: Brian Morris, Leif Wolf, Stewart Burn

This book describes holistic approaches for quantification and balancing of urban water and solute fluxes that have been developed by the joint Euro-Australian research project AISUWRS. The new tools comprise a chain of interconnected models that link urban water supply, urban drainage and urban groundwater resources. These include a new sewer exfiltration, model that is based on pipe asset conditions which permits flows to the environment to be estimated. The book provides details on the further processing of this information through the unsaturated zone down to aquifer, where numerical groundwater flow and transport models are applied. Concise documentation is provided on each of the models.

ISBN: 1843391384 · January 2007 · 150 pages · Paperback
IWA Members Price: £67.00 / US\$ 127.50 / €97.50

* Integrated Evaluation for Sustainable River Basin Governance *

ADVISOR



Author: Paula Antunes

This Report synthesizes the main results obtained throughout the ADVISOR research project ("Integrated Evaluation for Sustainable River Basin Governance") funded by the European Commission, under the "Energy, Environment and Sustainable Development" theme of the 5th Framework

Research Programme. The aim of ADVISOR was to improve the understanding of evaluation processes as part of river basin planning and

management and to provide a framework supported by a toolkit for the conduct of integrated and participatory evaluations. The project comprised four work-packages. The synthesis of the main results achieved throughout the ADVISOR project is presented in this report in three parts: Part A sets the stage for the role of integrated evaluations in river basin planning and management; Part B unfolds the set of relevant principles and tools developed in the project and Part C concludes with futures challenges for integrated evaluation processes.

ISBN: 1843391481 · January 2007 · 188 pages · Paperback
IWA Members Price: £45.00 / US\$90.00 / €67.50

* Computational Methods in the Management of Hydro-Environmental Systems *

Technology and Management



Authors: V Nassehi, DB Das

Computational Methods in the Management of Hydro-Environmental Systems will be an invaluable source of information for post-graduate level researchers and decision-makers who need to apply numerical modelling techniques to investigate hydrodynamic phenomena and pollutants dispersion in natural aquatic systems. Professionals and engineers, who now need to gain insights about the working of computer techniques for choosing appropriate schemes and applying them to realistic problems, will also value this work. Masters' level and final-year graduate students are also expected to benefit from the book.

ISBN: 1843390450 · January 2007 · 288 pages · Hardback
IWA Members Price: £60.00 / US\$120.00 / €90.00

* More Crop Per Drop *

Revisiting a research paradigm: results and synthesis of IWMI's research 1996-2005



Editors: Meredith Giordano, Frank R. Rijsberman, R. Maria Saleth

More crop per drop: Revisiting a research paradigm contrasts the acquired wisdom and fresh thinking on some of the most challenging water issues of our times. It describes new tools, approaches, and methodologies and also illustrates them with practical application both from a global perspective and within the local and regional contexts of Asia and Africa. Since this volume brings together all major research works of IWMI, including an almost exhaustive list of citations, in one single set of pages, it is very valuable not only as a reference material for researchers and students but also as a policy tool for decision-makers and development agencies.

ISBN: 1843391120 · January 2007 · 300 pages · Hardback
IWA Members Price: £56.25 / US\$112.50 / €84.75

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