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News update from IWA Executive Director, Paul Reiter

On behalf of the Executive Committee and all the London office staff of IWA I would like to extend best wishes to all our members for a happy and prosperous new year. 2006 promises to be both a full and exciting year for IWA and its members around the world.

- Outstanding Service Award
- Award for Outstanding Contribution to Water Management and Science
- IWA Publishing Award
- IWA Communications and Marketing Awards

World Water Congress Beijing

The single biggest event on the IWA calendar is the holding of the biennial World Water Congress. There has already been strong interest shown from our members and we expect over 3,000 delegates to convene in Beijing for the formal proceedings from 10 – 14 September 2006, not to mention the programme of surrounding events and tours.

The International Programme Committee of IWA will be finalising the program and workshops at its meeting in London late in February. With some 1,600 papers submitted for review the task is a daunting one but will ensure that the high quality of the papers presented at our Congresses will be maintained.

IWA Honours and Awards

IWA recognises the contributions made by its members and water sector professionals through a programme of honours and awards. These consist of:

- IWA Grand Award
- Honorary Membership of the Association
- Young Professionals Award

These awards celebrate success and achievement in the water sector. Nominations are sought for these prestigious awards which will be presented during the World Water Congress in Beijing. More details on these awards can be found elsewhere in the member newsletter and on our website.

Representing Members on the Global Stage

As the global association for water sector professionals, IWA plays a significant role in advocacy and representing members' interests in various fora.

The 4th World Water Forum will take place in Mexico City from 16 – 22 March 2006; IWA Regional Director Darren Saywell and I will be in attendance together with several other key IWA members to participate in the proceedings. The main theme of the 2006 forum is "local actions for a global challenge."

2006 Business Plan

I mentioned at the outset that 2006 promised to be both a full and exciting year. The Executive Committee has approved a business plan and budget for 2006 that builds on our existing strategic plan in furtherance of our vision of "connecting water professionals world-wide to lead the development



Paul Reiter

of effective and sustainable approaches to water management." Whilst substantial resources will be devoted to our biennial Congress we will, within the context of a conservative financial framework, continue to roll-out initiatives in important areas such as Young Water Professionals, Utilities, Global Sanitation, Publishing and Outreach & Regional Development. To underpin this we will continue to deliver improvements in our internal systems and capabilities such that we can provide streamlined services and support to our members and Specialist Groups.

Our 2006 business plan is accessible to all members via our website.

Changes to the London HQ Team

Sadly there have been some departures from the London IWA HQ team but on a positive note some key people have taken on new roles.

A very significant new role has been taken on by Antonella Strada, our Membership & Marketing Manager who gave birth to a son on 31 December 2005. Predictably Antonella will be "working from

News update (continued from front page)

home" for the next few months. The membership team has also "lost" Bernie O'Neill who is taking on a new position as Executive Secretary to the Association. Bernie is especially well known to Governing Members with whom she has worked for some time. It is my special pleasure to welcome Bernie to this new role as she will act as both my Executive Assistant as well as Executive Secretary to the Association.

Within the Programmes team our Director of Programmes & Member Services, Andrew Speers, has moved from a full time to a part time role. He will now focus on a number of specific projects. Our new Manager Programmes & Member Services is Keith Robertson who has a wealth of experience in this area. Unfortunately one of Keith's first tasks will be to recruit a replacement for Juliet Anderson who has been headhunted for a position outside the Association. Juliet was formerly involved in supporting Specialist Groups and arranging conferences.

Your Views

During February and March we will be undertaking an electronic members' survey seeking your views on a number of key points. Your opinions and feedback are critical to us in ensuring that our programmes and services meet your needs. Please spend a few minutes to complete and return the survey when it is issued.

Executive Committee Meetings

The latest meeting of the Association's Executive Committee took place on 22 and 23 February. Major items for consideration included the 2007-2010 Strategic Plan and the 2005 annual accounts.

The next meeting after that for the Executive Committee will be in June. That meeting will take place in Budapest, Hungary.

Utility Meetings

Two important utility meetings are scheduled for early this year. The first will take place in Berlin on 3 and 4 April 2006. This utility leaders' meeting will coincide with Wasser Berlin and will provide the opportunity for CEOs and other utility leaders to commence development of key position papers on global utility issues. The second meeting will comprise the Utility Leaders Forum in Singapore on 23 and 24 May 2006. Co-hosted by the Singapore Public Utilities Board this forum is targeted at CEOs from around the world but the Asia-Pacific region in particular. There is also an exciting opportunity for utility leaders to meet with IWA young researchers who are convening in Singapore from 24 – 26 May.

IWA Seeks Award Nominees for 2006

IWA recognises the special contributions of its members and water sector professionals through a programme of Honours and Awards.

Nominations are sought for these prestigious awards which will be conferred at the Biennial World Water Congress in Beijing in September this year. A summary of the award eligibility criteria is set out below. Nominations must be made in writing, addressed to the Executive Director of IWA. The closing date for nominations is Friday 28 April 2006.

The **IWA Grand Award**: For outstanding achievement of any kind in relation to IWA's activities and field of interest. The following criteria will form the basis for selection.

- Demonstrated excellence in science, technology, management or policy
- Vision, leadership, knowledge, persistence, creating new directions and opening new fields
- Recognised internationally within the membership of IWA
- Awardees need not be an IWA member

Honorary Membership: Individual members or employees of corporate members of IWA who have made an outstanding contribution to the Association and to the water sector.

IWA Young Professionals Award (given in honour of Dr Maarten Schalekamp): This award recognises professionals under the age of 35, who are either water sector practitioners or from research/academia. Awardees will have had both outstanding career achievement to date and the potential to play a large and influential role in the water industry in the future. The award is not restricted to members of IWA.

The successful awardee also receives a cash prize of £1,000.

IWA Outstanding Service Award (given in honour of Dr Samuel H Jenkins): The award is given for consistent and outstanding service to the Association. Awardees may be individual members, representatives of corporate members, members of editorial boards and permanent staff of the Association.

IWA Award for Outstanding Contribution to Water Management and Science (given in honour of Dr Karl Imhoff and Dr Pierre Koch): The award will be made to an individual member of IWA or official representative of a corporate member who has been responsible for an outstanding and innovatory contribution of international impact, relating to leadership, systems operation, or technical innovation e.g. a new a new treatment process or technique, a novel aspect of reticulation systems for water or wastewater, an innovation in the management, administration or financing of water sector activities, a major piece of outstanding research with potential widespread international effect, etc.

IWA Publishing Award: Recognises

significant contributions to IWA Publishing activities as determined by the Publications Committee of the Association. The award is not restricted to members of IWA.

IWA Communications and Marketing Awards: Assessed by the IWA Marketing and Communications Group, these awards seek to:

1. Enhance an integrated and sustainable view on Water as the Essential Good
2. Heighten the awareness among water utilities world wide of the increasing importance of establishing professional and effective communications with users of water and water services.

Entries for awards under this heading should reflect any aspect concerned with the provision of water and wastewater services – the Essential Services.

The categories:

- Best popular presentation of water science
- Best promoted water protection activity or programme
- Reports
- School information programme
- Customer bills
- Customer services activities

Important Notes

Recipients of IWA Awards will be given comprehensive publicity in WATER21 and IWA's Website as well as via press releases to the world's leading water sector media.

All recipients must be able to attend the awards ceremony at the forthcoming World Water Congress to be held in Beijing in September. Thus proposers should check that nominees can meet this key condition. Full details of the eligibility criteria and nomination process are available on the IWA website www.iwahq.org.uk or via IWA Deputy Director, Tom Mollenkopf. Email: tom.mollenkopf@iwahq.org.uk or Tel: +44 207 654 5500.



Dr Jamie Bartram (World Health Organization), 2004 Grand Award recipient

IWA Project Innovation Awards:

An advert for the newly launched IWA Project Innovation Awards programme can be found on page 13.

BBC focuses on water debate

All through December, BBC Radio 4's weekly science programme *The Material World* was broadcasting a series of audience debates. The series is a co-production with the Open University and is designed to support the OU's Science in Context course, S250.

Water is essential to all life on earth, yet 1 billion people worldwide do not have access to safe clean water and a further 2.4 billion people are affected by poor sanitation.

What can scientists and technologists do to

help provide safe, clean water and adequate sanitation and waste water treatment for everyone?

Will saving water in the UK make a difference to drier countries in other parts of the world? What is the impact of the developed world's passion for bottled water? And what will the impact of our demand for fresh fruit and vegetables all year round be on global water supplies?

Quentin Cooper was joined by water

specialist Professor Richard Carter from Cranfield University, Professor Paul Younger, an expert in hydrogeochemical engineering from the University of Newcastle and Professor László Somlyódy, Head of the International Water Association and discussed questions from the audience on the political, logistical and technological aspects of providing safe clean water.

<http://www.bbc.co.uk/radio4/science/thematerialworld.shtml>

Cities of the Future. "Blue Water in Green Cities"

Wingspread Workshop
July 12-14, 2006

Windpoint, WI USA

This interdisciplinary workshop of experts will develop visionary concepts on how to ensure that cities and their water resources become ecologically sustainable and are able to provide clean water for all beneficial uses. With urban waters as a focal point, this workshop will explore the links between urban water quality and hydrology, landscape, and the broader concepts of green cities and smart growth. The workshop will also address legal and social barriers to urban ecological sustainability and propose



practical ways to overcome those barriers and also focus on sustainability during extreme hydrological events.

Speakers and panelists will be selected by the Organising/Steering Committee and participation will be by invitation. The edited proceedings are due to be published by IWA Publishing.

In addition to the International Water Association, the major sponsors of the workshop

are the National Science Foundation, The Johnson Foundation, CDM, Inc., and Northeastern University. For information and possible invitation contact Professor Vladimir Novotny, Director of the Center for Urban Environmental Studies, Northeastern University, Boston, MA 02115, USA (novotny@coe.neu.edu). Workshop information can be also found on www.bleuwatersgreencities.com or www.coe.neu.edu/environment

Wetland Systems

10th International Conference on Wetland Systems for Water Pollution Control
September 23-29, 2006

Lisbon, Portugal

The conference will be an international meeting point for scientists, engineers, managers, and entrepreneurs. It will provide an opportunity to review research and management practices on both natural and constructed wetlands, with the purpose of improving natural dynamic processes and pollution control, in particular planning, operation, performance, and economics of wetland systems. The conference will include invited presentations by experts as well as several submitted presentations describing research conducted on treatment wetlands throughout the world. A panel discussion during the final plenary session will summarize the major themes addressed. The conference will include field trips to natural and constructed wetlands in Portugal, as well as a post-conference cultural programme which will help you discover the rich historical heritage of Portugal's charming and sunny riverside capital.

For more information please visit the website: www.wetconf10.adp.pt

Sequencing Batch Reactors

April 14-17, 2008
Rome, Italy



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

The 4th International Conference aims to bring together international experts in the field of wastewater treatment for the exchange of newest innovations and knowledge on the Sequencing Batch Reactor Technology through oral/poster presentation and discussion meetings.

The possibility of having a Live Interactive Web Seminar broadcast for one hour each conference day is under investigation.

As usual, a selection of papers will be published in Water Science and Technology.

Proposed Themes

- Fundamental studies for periodic processes
- Mathematical modelling and process control
- Nitrogen removal process-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: Developing Nations, Rural Communities, Cold Regions and Seasonal Tourist Areas
- Periodic processes for treatment of contaminated air and soils
- Application of periodic processes in manufacturing
- Cases studies-Domestic and Industrial

Contact: Roberto Ramadori, Email: ramadori@irsa.cnr.it Conference website: www.SBR2008.roma.it (under construction)

NOVATECH 2007

6th International Conference on Sustainable Techniques and Strategies in Urban Water Management

June 25-28, 2007

Lyon, France

Every three years, since 1992, the Graie organises in Lyon one of the main international conferences on sustainable techniques and strategies in urban water management. The 6th edition of the Novatech conference will welcome more than 500 delegates from all over the world.

It is an international scientific symposium of high quality, where researchers exchange with the international scientific community (200 researchers in 2004 including 130 coming from abroad). It is, at the same time, a technical conference much appreciated by practitioners (300 practitioners attending Novatech 2004). The Novatech conference is one of the main events supported by the IWA/IAHR Joint Committee on urban drainage.

The general theme of the conference is the design, implementation and operation of sustainable solutions for wet-weather flow in urban and suburban areas.

The main topics are:

- best management practices for stormwater management;
- specific technologies for treatment of urban wet-weather effluents;

- tools for the analysis of sewerage and stormwater system operation; and,
- sustainable urban stormwater drainage systems.

For 2007, the scientific committee hopes that the Novatech conference will become a platform for links and projects between scientists and practitioners, and calls particularly for joint communications.

Call for papers: February, 2006

Deadline for abstracts submission: June, 2006

Programme and registration: January, 2007

Novatech secretariat: GRAIE – BP 2132 – F 69603 Villeurbanne cedex – France

Tel: + 33 (4) 72 43 83 68 – Fax: +33 (4) 72 43 92 77 – Email: novatech@graie.org

<http://www.novatech.graie.org>



Sewer Operation and Maintenance

October 26-28, 2006

Vienna, Austria

Operational models and economics:

Regulation; institutional frameworks at national and international levels (WFD)

Structural, hydraulic and environmental aspects:

Infiltration/Exfiltration; Design; Rehabilitation; Quality of construction; House connections

Continuous operation of sewer systems:

Strategies; Techniques; Solids, pollutants and processes within sewer systems

Benchmarking, performance indicators and asset management:

Performance evaluation; Performance indicators for monitoring systems

Monitoring, Modelling & RTC:

Monitoring and data collection; Real Time Control; Modelling and simulation of integrated urban water systems; New concepts (association of traditional sewers with BMPs, source control, new sanitation, centralised/decentralised, etc.)

Education, training, long-distance learning:

Optimal design of training systems; Special demands in remote areas and developing countries; Technology and knowledge transfer

Geographical information systems and Decision support systems

Submission of manuscripts (extended abstract or full paper): February 28, 2006

Contact:

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IWA Connections – Building bridges

1 What is IWA Connections?

- IWA Connections is a scheme designed to provide support for the development of IWA Governing Members (GM) in needy low and middle income countries. It aims to link or twin governing members in high income countries with their counterparts in other parts of the world (in essence, building a 'bridge' between the two).
- Connections will be in the form of financial or other material support, and would be offered on an annual basis, although initial commitments are sought for a three year period to provide a degree of continuity in approach.
- IWA Connections supports the work of the Association's Global Development Solutions programme (in essence, the Association's regional development programme), which helps to extend IWA's presence and activities in low and middle income countries. Governing members can, of course, choose to continue to support the existing programme of activities without subscribing to Connections.

2 Why participate?

- Solidarity: to strengthen and catalyze the Association's development – effectively growing membership and to help achieve more locally;
- Humanitarian assistance: To assist with compassionate efforts and developments in parts of the world that face the severest water and sanitation development challenges;
- Shared histories: to target resources to countries where governing members have special interests or historical connections.

3 How does it work?

- Governing members from high income

countries make an additional financial contribution to the scheme at the time of their payment of governing membership fees. A percentage of this contribution is used to cover development costs and fund activities of governing members in low/middle income countries. Any remaining contribution will be dedicated to the existing Global Development Solutions programme (previously referred to as outreach or regional development programme);

- Typically, the countries benefiting from IWA Connections are those where there is either no current membership or where membership has potential but has been unable to raise the current governing members fee or catalyse significant action due to lack of start-up funds;
- Contributions to the scheme include:
 - Allocation of approximately 50% of the voluntary contributions towards local, home grown events and activities (defined by local national committees), which are the first step in catalysing further membership and action.
 - Allocation of a 'matching' fund, where half of the annual governing member fee in an adoptee country is paid for by a high income country governing member, with the remainder sourced locally by national committee members. Matching funds help to overcome the initial difficulties of creating, forming and developing memberships and promote self-reliance;
 - A contribution to the costs of catalyzing membership, in the form of recognising the need to communicate, promote and publicise the work of the Association locally;
 - A contribution towards IWA's Global Development Solutions programme;



- The worked example below illustrates a typical breakdown of such a contribution.
- IWA Connections will seek to match individual or groups of governing members from high income countries with their counterparts in other parts of the world. This twinning would be based on mutually shared interests (natural, geographic, language or historic connections) and affiliations;
- For those governing members wishing to make a material contribution, the London office will help to facilitate and broker this interaction, following a dialogue between the respective members (including an understanding of demand and supply of resources);
- IWA London office will provide a biannual update on how contributions to IWA Connections and other support have been allocated and with what impact;

4 When

- IWA Connections will begin in 2006, and will align to the renewals timeframe for governing members.

5 Find out more

For further details, please contact:

Dr. Darren Saywell, Regional Director, IWA,
Alliance House, 12 Caxton Street, London SW1H
OQS Tel: +44 207 654 5552; E-mail:
darren.saywell@iwahq.org.uk

Worked example

Contribution to IWA Connections	£	%
Hypothetical contribution to IWA Connections	5000.00	
Allocated to:		
1. 50% matching fund for governing member fees in needy countries (typically £500.00)	250.00	5
2. Activities per annum (such as events, workshops, publications, etc)	2500.00	50
3. Costs in catalysing membership locally (i.e., communications, kick-off events, etc)	500.00	10
4. Contribution to the Global Development Solutions programme*	1750.00	35
Total	5000.00	100

* IWA's programme on regional development is a core part of the strategic and business plans for the Association. As such, the programme provides the Association with multiple opportunities: to extend membership in countries and regions where it is currently under-represented; to facilitate the cross-fertilisation of skills and knowledge of existing members to these regions; and to support widespread strengthening of existing national capacity.

Further information can be found at: http://www.iwahq.org.uk/template.cfm?name=iwa_outreach

60 Second Interview Series – Prof. Dr.-Ing. Ralf Otterpohl

Prof. Dr.-Ing. Ralf Otterpohl has been the Director of the Institute of Wastewater Management and Water Protection at Hamburg University of Technology since 1998. The majority of Professor Otterpohl's time is dedicated to research programmes; working with 25 researchers, he leads activities focused on source control systems, black water, yellow water, and specific technologies for water treatment. Prior to his position at Hamburg University of Technology, he founded and developed a consultancy group that specialised in computer simulation of large wastewater treatment plants and innovative sanitation concepts. The consultancy still exists (Ottowasser, situated in Lübeck, Germany), but Professor Otterpohl is currently only lightly involved in its development.

His chosen field of interest and specialism is wastewater management, with a particular interest in new and innovative concepts. He has a long career in mathematical modelling and computer simulation of wastewater treatment plants and it was this interest that motivated his joining IWA – the Association was advocating strongly for mathematical modelling at the time, which was a new and pioneering subject. He is currently Chair of IWA's specialist group on Ecological Sanitation.

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 was the heightened consideration of innovation in concepts and approaches rather than the slavish adherence to existing technologies where the margin for improvement is small. This discussion has flourished over the last 10 years; previously it was difficult to discuss innovation of concepts (in wastewater or sanitation), nobody was interested and there was little substantial work on this topic, except from people outside of the water profession. Now, inside the profession, there has been quite a leap forwards and several larger research groups are managing major projects in this area.

One practical example is sanitation. In the past, alternatives to sanitation were almost exclusively viewed as selected types of composting toilets or dry toilets; the issue was raised by those outside of the water profession and as a result was not seen as very 'sexy', or credible. But with the work and effort of a small number of professionals from around the world, the subject has been slowly integrated into the mainstream. I think that internationally about 10 people were active in promoting these ideas - making a fool of themselves at the time - and even talking about subjects and issues in the absence of any recognition.

This was at a tremendous cost in those early years; particularly in terms of enthusiasm and motivation, but also the credibility and

profile of those doing the advocating. Today, there are very many joining in and saying the subject is of interest; projects are funded by the EU and other major donors; even the biggest water company in the world, Veolia, is undertaking research at its Berlin branch on this subject.

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

I think we really have to deliver more to those areas of the world where sanitation and water supply provision remain a challenge. We do have a handful of exciting, innovative solutions, but most of them have only been applied on a small scale. So a key activity in the next 10 years will be getting these technologies to scale, improving them, and bringing them into the water profession.

There are many regions of the world where conventional ways are failing. Few are willing to put excessive amounts of money into the rehabilitation of conventional systems, so we need new approaches in these fields. But currently we have a tool box with only one tool in it - we need more!

We also need utilities to move into this area because there are major tasks and actions which cannot be achieved through small scale operations. There remains a need for considerable investment in these fields, even though the systems can be very cost efficient. If you seek to provide services for 2 million people in one location there has to be a suitable organisation that has professional knowledge and skills to manage the process and from my personal observation there are several utilities pursuing this closely. They are still hesitating to go to scale, but that may change soon.

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

One person that stands out, in my opinion, is Prof. Peter Wilderer. He had adopted the idea of new concepts very early on, was supportive of others, and has raised the subject's profile to a higher level of recognition - he is really an outstanding person in this respect. People who are also looking further ahead and developing new systems include Prof. Petter Jensen in Norway, from the agricultural university near Oslo; and from Sweden, Prof. Håkan Jönsson, who is the Co-Chair of IWAs Ecological Sanitation specialist group – both have put considerable time and effort into this subject. Others, such as Prof. Saburo Matsui in Japan, and Prof. Goen Ho in Australia have been active in this field.

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

Of course, I have published quite a bit about the possibilities of new concepts. However, what I consider really crucial is to demonstrate these things in real life. So I think my largest practical contribution is the Lübeck

Flintenbreite project, the real life implementation of an ecological sanitation system that has been visited by 2,500 people from 60 different countries from around the world. That has had quite an impact.

My experience with people seeing this project is that they come to perceive that such approaches are possible, that it is economically feasible, that it looks very neat - and the process of understanding opens up their imagination. Generally, however, we are stuck in what we know; we have all grown up with conventional sanitation systems and to see that something else is possible and just as comfortable has large potential impact.

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

One positive point is that the Association has so many like minded people working in the same field - this feature of membership should be protected. There should be enough new initiatives to attract young researchers and younger members, to attract people who want the feeling of belonging, as this is the strength of the organisation.

In IWA there is a strong spirit of innovation, of creative thinking, of being more relaxed and less formal than in national organisations – this too needs to be fostered and developed. On occasion, a close relationship to a national Association may be prohibitive for those of us trying to reach further or develop new thinking. One practical suggestion for IWAs future development would be to provide additional possibilities to link up with people on a national level and/or a regional level. Connections to IWA specialist groups would be one example.

Special interests...

I have spoken about research and practical applications before, but at the same time I see a need to include innovative concepts and thinking in teaching at universities and colleges, because this is something that it is clearly lacking. There is a need to make the teaching perspective and curricula wider on this subject - this does not have to be a full class, it can be maybe just two or three hours on such issues - but this would give students the idea that there is something beyond the conventional...

Many of our young people work abroad and they should have some knowledge about the needs and the possibilities for other parts of the world, other geographical and social economical conditions. Ideally, this would be something the IWA could offer; having prepared presentations where people could pick out things they could include in their teaching from an IWA-presentation-exchange pool.

What are the key fracture points – issues of conflict or debate in your specialist area?

That they exist is definitely true for my field of work. When working with concepts that are quite a bit different from the usual there is



Ralf Otterpohl

potential to provoke anger and fear from within the profession. People will believe in what they have always believed in and are sometimes not willing to accept there are other ways that may have some advantage. Conflict of this type is being reduced as more and more people hear about new concepts and alternative sanitation options and get to know that there are several people working on these topics. Still, it has to be addressed and these fears have to be taken seriously, so open debate helps. It is critical to

make a clear distinction between emotional criticism that tends to hurt the individual and professional criticism that helps further conceptual and practical development.

Forthcoming news of interest...

We [the specialist group] are interested in preparing for IWA a handbook on resource management sanitation, to bring together the array of new concepts, experience and case studies. Although there is much information which is currently available, much of it is not commonly known. To this end, we have developed the website of our specialist group (<http://www.ecosan.org>) where we have compiled resources and aim to bring more case studies and research to the knowledge of professionals working in this field.

At my own institute we have 15 researchers working full time on these subjects so we are probably the largest organisation working in this field at the moment, with an extensive portfolio of publications.

Career defining moments...

I would definitely encourage everybody, especially those who are finalising their university studies, to focus on those subjects that really interest them as opposed to going purely for

what appears to be a better opportunity. If a person is really enthusiastic about something with some potential, really loves to do it, then this person will be successful in that field. This happened for me with computer simulation and mathematical modelling - I was really enthused by the subject. This motivation came after hearing a presentation by Prof. Willy Gujer some 18 years ago. I thought this was really something. This was so enlightening at the time that I started my Masters in this field and then followed it with research work for my Doctoral dissertation. This work inspired my activities on innovative concepts as a counterbalance to the disappointment of mass flows of conventional systems.

Contact points

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2006 Membership Renewal

IWA would like to thank all the members who have already renewed their membership for 2006.

At the end of December 2005, IWA had 2,035 active 2006 individual and 65 corporate members. These are mainly those individuals who have:

- taken out the multi year membership option
- renewed after receipt of the first reminder.

In 2005 the same figures were 1,300 for individual and 59 for corporate members. At the end of January 2006, these figures have risen to

2,900 for individual and 154 for corporate members. These are the highest number of active members by the end of January over the last 6 years.

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 Publishing Books (25%)
- Discount on IWA conference, workshop and seminar registration fees
- Discount (25%) on Water Intelligence Online and Pay-per-view journal articles

If you have not yet renewed your membership, you can renew online at the following link:

www.portlandpress.com/iwa/renewal.cfm
alternatively, please contact
iwamembership@portland-services.com or
members@iwahq.org.uk.

NEW CORPORATE MEMBERS

CDM INTERNATIONAL, US

CDM provides consultation, engineering, construction, and operations services in drinking water, wastewater, and water resources

management to serve the needs of their clients around the world. They plan, design, build, and operate facilities to meet complex water and wastewater management needs. They assist in developing funding strategies to leverage available federal and state funding sources. www.cdm.com

UNITED WATER, US

United Water provides water and wastewater services to 7 million people in the United States. In addition to owning and operating regulated utilities, United Water operates municipal systems through public-private partnerships and contract agreements. Four of the US's largest water and wastewater contracts are operated by United Water. www.unitedwater.com

PURE TECHNOLOGIES, US

Pure Technologies is an international technology company which has become a world leader in providing information and communications technology for infrastructure management and surveillance. Pure's clients include owners and managers of water & wastewater pipelines, bridges, buildings, parking structures, water reservoirs, nuclear structures, and others. www.puretechnologiesltd.com

SPEED WATER SYSTEMS, Sri Lanka

Speed Water is a subsidiary Company of Sritrim International Ltd in Hong Kong. Based on client requirements Speed Water is economically affordable for its user. Speed Water Systems is one of the most versatile bottled water companies in Sri Lanka which has achieved SLS accreditation within a year of operations. www.speedwater.net

Membership News

2005 End Year

Membership figures for 2005 have increased slightly over the prior year, with individual members up by 2.4% and a 4.3% increase on corporate membership. IWA focused on retention as opposed to recruitment in 2005 and successfully reduced the churn rate for both individual and corporate members.

Members are predominantly from Western Europe, followed by East Asia and the South Pacific. There was however an increase in membership in the following Low Income Countries: Bangladesh, Chile, China, Colombia, Croatia, Kenya, Malaysia, Mexico, Paraguay, Poland, Romania, Russian Federation, South Africa, Uganda and Zambia.

IWA Specialist Groups

Specialist Group Impact Assessment

Specialist groups: documenting impact...

IWA specialist groups represent the core vehicle for issue-based interaction on scientific, technical and management topics. As part of the support offered by the London office to its specialist groups, IWA is leading an activity to assess and review the impact that a sample of IWA's specialist groups has had on policy, practice, and implementation in specific areas of the water sector.

The motivation for this task is to provide examples and evidence that will demonstrate the value, and enhance the appeal, of IWA membership to both existing and potential members.

A shortlist of potential specialist groups for consideration in the assessment was produced following consultation at the London office of IWA. A series of telephone interviews with the leaders and/or secretary's of these groups was completed against a pre-determined set of probing questions. Narratives from each of the discussions were produced, and combined with a third party search of literature references and examples of impact from group activities. The results of this assessment have been compiled and are available on request. The document concludes with a tabulation of types of change brought about by the specialist groups in question.

Points of consensus emerging from the review include:

- There are selected examples of significant impact that have brought about changes in state – in policy, practice or scientific thinking. In general, these are derived as a result of networking or other coordinated, member led events, or in bringing together leading experts in dedicated working groups;
- On occasion, IWA's specialist groups have been instrumental in bring about changes in scale of operation (such as nationwide, inter-regional or international adoption) or changes in longevity of practice (such as new standards that become industry norms);
- An important impact reported via the narratives has been in intangible elements – where specialist groups provide a basis for network, thinking / awareness raising and in capacity development;

The project, led by Darren Saywell at the London office, includes impact reviews of five IWA specialist groups. Following further editing, this document will be communicated and publicised to all members. Further details are available from darren.saywell@iwahq.org.uk or by telephone at +44 207 654 5542.

Efficient Operation and Management of Urban Water Systems

The EOM Specialist Group is one of the most active groups within IWA, covering a wide range of topics and experiences. The Group can be described as a cluster of different task forces or groups, which deal with the most relevant or currently interesting topics within the scope of the Specialist Group.

The EOM SG task forces which are active at the moment are:

- Efficient Use and Management of Water
- Water Losses
- Performance Indicators for Water Supply
- Benchmarking
- International Demand Management Framework
- Operation and Maintenance Network

One of the key characteristics of the Specialist Group is the excellent integration of the different interest groups in the group's activities, which is effectively carried out through the most active nominal members. These active individuals are practitioners, scientists, researchers, academics and consultants that are involved in most of the SG activities. The motivations of the members to take part in this work are very different, and also different are the benefits that they obtain from their participation. The work in the SG is enriched from this diversity as the people participating in task forces provide different and complementary qualifications and backgrounds.

The work of the Specialist Group is not limited to its own groups and members. The EOM SG also interacts with other IWA Specialist Groups in coordinated efforts and projects. Clear examples of these joint efforts are the Planning and Construction, the Statistics & Economics, the Marketing and Communications and the Water Reuse Specialist Groups.

Additionally, the EOM SG maintains links with other entities such as the Operation and Maintenance Network or the World Bank Institute. Within the IWA structure, the group is active in several bodies such as the Programme Committee, the Strategic Council and the Utility Forum, while also playing a very active role in all Young Professionals programmes.

Recent activities

The main recent activities can be summarised in two conferences organised in 2005 by EOM SG task forces.

Efficient 2005

Held in Santiago, Chile, the 3rd International conference on Efficient Use and Management of Water was a renovated success with more than 300 participants and a considerable number of papers and presentations.



Dublin Wastewater Treatment Plant

Leakage 2005

Held in Halifax, Canada. Organised by the Water Losses task force, the 200 participants from 30 different countries contributed to the success of a series that will also continue in the years to come.

Future activities

The most relevant activities that will produce an output in the following months are:

- IWA Beijing World Water Congress: The Specialist Group will organise several workshops during the Congress on key topics related with its activities
- New manual on Performance Indicators for Water Supply: After 6 years of additional work, a new and comprehensive manual on PI will be published by IWA Publishing.
- Efficient 2007: The new edition of the Efficient Conference series will be held in 2007 in South Korea.
- Leakage 2007: Romania has been chosen for the new edition of Leakage. The final proposal is still being developed.
- New task force on developing countries. This new task force is currently in the process of being created.

The next meeting of the EOM Specialist Group will be held during the Beijing World Congress. Do not hesitate to contact us and attend this meeting if you are interested in the SG activities.

Key facts for the EOM SG (2005)

736 nominal members

75 countries

1 annual meeting

2 biannual conferences

Francisco Cubillo - Chair

Health Related Water Microbiology

The Specialist Group on Health-related Water Microbiology (HRWM) has 960 members representing 65 countries. The Group aims to cover all aspects of the microbiology of water and associated materials where it impacts on

human health. Through its activities, the Group aims to foster co-operation in health-related water microbiology, coordinate the exchange of information encourage publication in the journals of the IWA and to encourage younger scientists to partake in the development of the Group's activities as part of the IWA family.

Our group has several activities. We run a HRWM conference every other year. The last was held in September of 2005. The conference at the University of Swansea, Wales, was a huge success. Twenty-one countries were represented, with 54 papers and 86 posters presented. In 2007 we will be running a conference in Tokyo Japan.

Our group has advanced the following areas as presented in Swansea.

- Microbial Source Tracking techniques and applications.
- Assessment of watershed and particularly control of non-point sources.
- Groundwater contamination and emerging contaminants such as the cancer-causing bacterium *Helicobacter*.
- Impact of pollution of recreational waters
- Microbial Risk Assessment methods.
- Monitoring and use of molecular methods.

While a few years ago there were many talks on developing PCR methods, risk methods source tracking methods. At this meeting the theme revolved around the application of these methods for the assessment of the level of contamination, the type of contaminant and the risk. Finally, controls from the watershed to disinfection were advanced.

We also participated in the 4th IWA World Water Congress.

In Marrakech we focused on the research needs to address water quality and health in the future. No one approach will suffice to address all the needs in defining water quality and health goals and the scientific data gaps. However, integration of geographical and problem oriented science is needed. Tools, techniques and various approaches and needs were identified. Economics, level of technology, nature of the problems, geographic influences, societal values (local and global) will have to play a role. While we are moving toward A Hazard- based or risk-based approach, use of Quantitative Microbial Risk Assessment (QMRA) Watershed assessment (WSP) and management strategies such as HACCP (hazard analysis critical control points), equally our values need to be adequately debated. We believe that the HRWM group of scientists can do a lot to address the challenges raised. While we have knowledge, expertise, data, case-studies, and models, these are often fragmented lying within groups and within the agencies funding the research. Thus we would propose the following:

- Develop the top 100 questions to be answered in health-related water microbiology (using a web-based Delphi

approach to garner the global expertise).

- Develop a road map which incorporates disease and health burden data, with water quality, QMRA, WSP, HACCP along with monitoring programmes for developing and developed countries, taking into account the social values.
- Promote a global data base on scientific information on data, technology, tools and water quality. Move toward a searchable data warehouse.

Our group has been instrumental in the development and editing of a new journal, the Journal of Water and Health. The group also has a strong relationship with the World Health Organisation, which is focused on the journal and other activities. We will continue to foster Water Quality and Health world-wide by forming stronger partnerships at the local, country and global level.

Finally visit the HRWM web site for the latest outbreak news around the world, news on our conferences and publications at:

www.iwa-microbiology.org

We welcome all new members and please feel free to email us with your thoughts at hrwm@msu.edu.

Joan B. Rose - Chair



Hydroinformatics

Hydroinformatics is a cross-disciplinary field of study concerned with the application of information technology in the widest sense to problems of the aquatic environment. Hydroinformatics covers technological, environmental and socio-technological aspects, including an ethical perspective. However, hydroinformatics is not just an application of Information and Communications Technologies (ICT) to water resources, hydraulics or hydrology. The best analogy with which to explain the relationship between ICT and Hydroinformatics is probably the relationship between telecommunication networks (which can be, and on the trivial level most often are, applied to telephone conversations) and added value networks, such as those providing access to WWW servers. The former are only a low cost material support to the latter. Hydroinformatics provides a symbiosis, and even a synergy, between ICT and water science and technologies.

Hydroinformatics draws its foundations on Mike Abbott's inspirational book "Hydroinformatics: Information Technology and Aquatic Environment" published in 1992. Shortly after the publication, in spring 1993, International Association for Hydraulic Research (IAHR) established Section on Hydroinformatics. In 1994, the First International Conference on Hydroinformatics was held at then IHE-Delft (The Netherlands). This event marked a start of successful bi-annual conference series which has been hosted at locations all over the globe (Zurich, Copenhagen, Iowa City, Cardiff and Singapore). The forthcoming, 7th Hydroinformatics Conference will be held in Nice (France) – see www.hic06.org for more information – in September 2006 and is expected to attract more than 400. The task of hosting 8th Hydroinformatics Conference has been awarded to University of Concepcion (Chile).

In 1998 The International Water Association (IWA) adopted the Hydroinformatics Section as its own Specialist Group. At the same time, IWA Publishing established The Journal of Hydroinformatics (www.iwapublishing.com/template.cfm?name=iwaj), which is presently in eighth year of publishing. Finally, in 1999, International Association for Hydrological Sciences (IAHS) also adopted the section making it Joint IAHR-IWA-IAHS Hydroinformatics group. The group maintains its own web site (www.hydroinformatics-community.org) which list bye-laws, minutes of meetings and many other hydroinformatics-related resources. The group is keen to encourage IWA representation within the group.

Vladan Babovic – Chair



Institutional Governance and Regulation

Formation of Specialist Group on Institutional Governance and Regulation

The ability to achieve sustainable water and sanitation services depends upon many things including a healthy eco-system, a good understanding of water microbiology and chemistry and the development and effective operation of water treatment, water distribution and wastewater collection and treatment systems.

However, the ability to apply this knowledge is dependent upon there being effective institutional governance and regulatory frameworks. Appropriate frameworks need to be in place to establish clear policies, to determine how costs, including the costs of maintaining systems can be recovered, to facilitate public participation and to set and monitor quality

standards. Such frameworks can be highly structured and formal, or very informal, but important principles need to be applied to achieve action and system sustainability.

Within the current IWA membership there are many members among utilities, academia and consultants who have a direct interest in institutional governance and regulation, and there are others, especially people involved in government who are seeking a non-political arena in which issues can be discussed and ideas developed. The new Specialist Group will provide this arena and, as with all IWA Specialist Groups, is open to any IWA member. Its activities will cover any aspect of institutional governance, economic, drinking water quality and water environmental regulation, of interest to the group members.

Within the Specialist Group, Task Teams will be formed to develop IWA statements on water matters such as sustainable approaches to cost recovery, tariff structures, provisions for the poor, approaches to integrated planning and principles of effective regulation. The text of these will be agreed by the Group's management team and submitted to the IWA Committee structure for approval and publication.

Specialist Conferences will be organised on topics of high interest to members, in collaboration with other Specialist Groups, IWA national committees and outside bodies as appropriate. It is expected that a specialised conference will be held at least every four years.

Initially, communication will be by e-mail and through the IWA website, but meetings and seminars will be organised to coincide with appropriate IWA events, the first one being the IWA Congress in September 2006 in Beijing. There will be a Group newsletter which will be issued electronically at a frequency dependent upon the information needing to be disseminated.

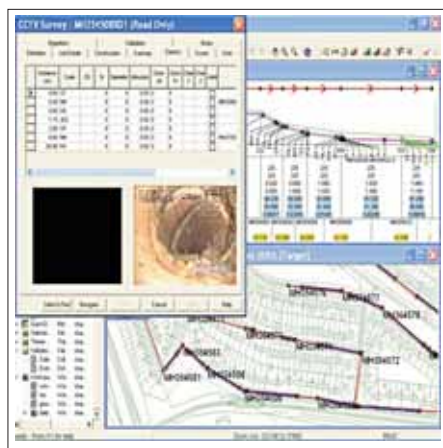
The first Chair of the Group will be Michael Rouse, the Immediate Past President of IWA and formerly Head of the Drinking Water Inspectorate in London, now teaching on Institutional Governance and Regulation on the Oxford University MSc Course on Water Science, Policy and Management. The first Secretary will be Jan Tyson who brings experience of environmental regulation from the perspective of a privatised water utility in the UK. The full management committee of the Group will be established at the meeting to be held during the Congress in Beijing in September 2006.

IWA members interested in taking part in the activities of the group are invited to enrol through visiting, <https://www.portlandpress.com/iwa/change/change.cfm> and provide information for the Group's membership database.

Michael Rouse - Chair

Statistics and Economics

The scope of this Group is to provide a forum to debate how utilities are financed, their various water tariff structures and the



Software Tools for Water Industry

measurement of performance. Through periodical worldwide surveys the Group provides water industry statistics on countries water facts updating abstraction, consumption and water charging figures. Workshops and seminars are organised annually in the scope of sharing information and experiences with a focus on both fundamental and practical issues about current pricing and funding practices. These are to be considered by the economic and responsible behaviour of water utilities. Through its activities the Group is focused on satisfying the needs of the Group's membership while at the same time positively cooperating with other IWA Specialist Groups so helping to deliver relevant aspects of the Association's Strategic Plan.

Forthcoming events.

A workshop is expected to be confirmed at the next World Congress in Beijing. The workshop will be held as an open round table and the audience is expected to interact. The primary focus will be the pivotal statements coming from the leaflet on International Statistics for Water Services, that the Group has since presented at every biennial world Congress, and try to investigate how they can be influenced by the different regulations the water services are nationally concerned with.

The context and background to charging regimes and their appropriateness to different circumstances for water resources management are hopefully expected to provide interesting insights to investigate the rationales of the above statements

The Group is going to update the leaflet on "International Statistics for Water Services" presented at 2004 Marrakech Congress, which will cover charging levels and water service key figures and where the results coming from a wide survey on charging regimes and policies will be even incorporated in.

The above should be hopefully edited by IWA Publishing and presented at the next World Congress in Beijing.

For more information, browse the IWA website - www.iwahq.org.uk/template.cfm?name=sg37 - where an exhausting and updated view of the

Group's activities, published documents and newsletter can be found.

Renato Parena - Chair

Water Reuse

With 1223 members, the WRSG is one of the largest within IWA. The number of active members has been increasing since 2002. The board is formed by seven persons from different countries and backgrounds: Blanca Jimenez (MEXICO), John Anderson (AUSTRALIA), In. S. Kim (KOREA), Takashi Asano (USA), Bahaman Sheik (USA), Marcelo Juanico (Israel), Naoyuki Funamizu (Japan) and Jaeweon Cho (Korea). We also have a Scientific and Advisory committee comprised of 22 distinguished members. The main objectives of the group are:

- To promote water reuse and recycling by increasing public, governmental and professional awareness and understanding.
- To contribute to establishing useful, pragmatic, realistic water reuse quality criteria that may be implemented gradually all over the world.
- To create an awareness among researchers, policymakers and professionals about different water reuse needs in developed and developing countries.

To achieve our objectives we are: (a) operating and strengthening the worldwide water recycling knowledge network by linking our members and collaborating with institutions or associations with similar interests; (b) participating actively in different committees to produce criteria, and (c) distributing our newsletters and organising international meetings in different countries and with different groups.

Over the past two years we have undertaken several activities including:

A. Publication of our main activities in the IWA Year book, Review of the membership list, Publication of 5 issues of the newsletters, Establishment of rules to elect the new board, Participation in the IWA Specialist Groups meeting in Maastricht and Selection of reviewers for the Beijing IWA World Conference. These activities have been performed in collaboration with the IWA headquarters.

B. Water reuse events:

- Co-organisation (IWA, IMWI, ICID and Wageningen University) of the Special Session "Managing Water for Sustainable Agriculture" in the 55th IEC Meeting held in Moscow during September 2004. As a result of this event, a special issue on the Irrigation and Drainage Journal was produced by IWA and ICID (International Commission on Irrigation and Drainage) in 2005.
- Participation in the 2nd Costa Brava Water Reuse Meeting.
- Participation in the REUSE Medawara Symposium held in May 2005 in Spain.
- Organisation of the 5th International

Symposium on Water Reuse, in November 2005, Jeju Korea.

C. Collaboration with other IWA Initiatives, such as

- The International Conference on Water Economics, Statistics and Finance organised by the Specialist Group on Statistics and Economics in Crete, Greece (July 2005)
- Dry Area Forum and the Water and Health Symposium (co-organised with WHO) during the 4th World Water Congress held in Marrakech
- The Global Research Coalition to define priority research topics on Reuse.

D. Collaboration with other associations/institutions

- Following a request from WHO we have organised an expert consultation of the agriculture and aquaculture WHO water reuse guidelines through the IWA specialists groups website.

E. Book production

In July 2004 the project Water Reuse International Survey was launched. This report will describe water reuse practices worldwide. The object is to show that reuse and recycling are very broad concepts, to collect comparable data about the practice around the world and to understand how social, cultural and economic conditions influence water reuse practices. Currently, around 60 specialists from around the world are working on the project. The final material will be published by IWAP as a book and will be divided into four sections covering:

- The regional situation
- Stakeholders point of view (agriculture, urban agriculture, industry, municipalities, environment and aquifer recharge)
- Main technical topics (Ethics, Public Consultation, Guidelines, Public Responsibilities, Private participation, Economic Tools)
- 14 Case studies from Arabic Countries, Brazil, Cameroon, Germany, Japan, Israel,

Blanca Jimenez



the Mediterranean region, Mexico, Namibia, Northern Europe, Pakistan and Spain.

WRSG Profile

Considering the activities performed by all the group members, our profile is excellent in relation to: (a) membership, (b) Newsletter production, and (c) editorial contribution to IWAP. Our performance concerning the Citation Impact Factor on Water Science and Technology, efficiency in producing the WST volumes (time between the end of the conference and WST publication) and the collaboration with other organisations different to IWA is "average", indicating that there is room for improvement. Finally, the number of events we organised and collaboration with other IWA Specialist groups is rather poor so more work will need doing with regard to these aspects.

Future activities

We will have a new board on September 2006 chaired by Prof In. S Kim who was elected by consensus during our biennial meeting in Jeju. The main activities for the future will be:

- a) Organising our biennial conference
- b) Finishing the International Water Reuse survey
- c) In order to have financial resources to support WRSG's activities we will retain 3 % of the biannual Symposium's income.

- As we experienced in the previous conferences, the decision of the next venue has to be made as early as possible so that the hosting organisation can prepare a good conference. To determine the next venue more efficiently, a standardised format has been suggested prior to the conference. The candidates prepare all these requirements ahead of time for the selection of venue to be presented in the SG meeting for about 10 minutes based on the suggested format. The main desire from the host country to hold the conference can therefore be heard by the members in the SG meeting. All of these proposals must be submitted to the Chair of Water Reuse SG at least a week before the actual conference begins.

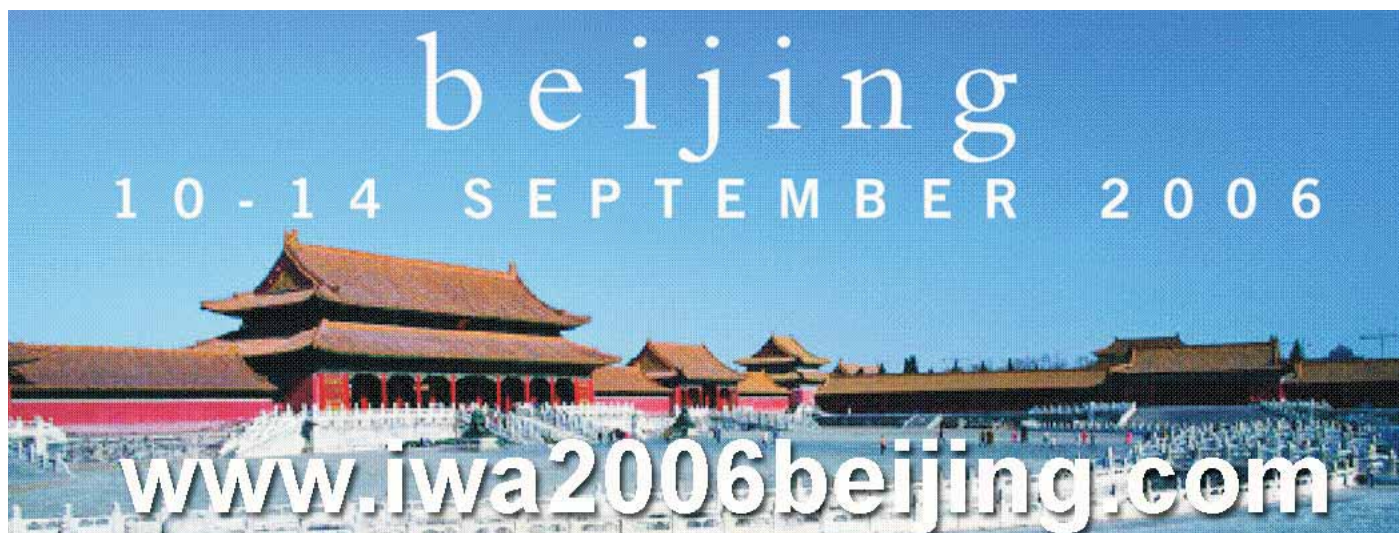
- Not only the venue, but the election of the next Chair of WRSG by a systematic way is a most important issue. We need to further upgrade the WRSG short constitution (The format of proposal and a time schedule for Chair and Venue decision). The transparency and timing for the specific issues are critical to the WRSG members.

- A need to continuously make a book or articles containing essential information on Water Reuse (the necessary area and parts will be further discussed). It may be an idea to set two to three task-force teams to pursue each specific task. Before the teams form, a questionnaire to each of WRSG members will be used to collect all the ideas.

-As everyone agrees, those young water professionals are the leaders for the next generation. The group wishes to make it more attraction for them to join in the WRSG activities and encourage them to volunteer to recount any relevant work. An attempt to encourage close communication with the leader of Young Water Professional group is to be implemented.

- Strategic plan for expediting the efficiency for producing WST is crucial in the coming days. Selection of quality paper after referee's review is far most important factor to increase the SCI Impact Factor of WST.

Blanca Jimenez - Chair



News from IWA Publishing – www.iwapublishing.com

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

* Water Demand Management *



Editors: David Butler, Fayyaz Memon

The purpose of this book is to give an up-to-date overview of the wide range of issues surrounding water demand management. This book will be an invaluable information source for practitioners and researchers, including water utility engineers/planners, environmental regulators, equipment and service providers, and postgraduates.

ISBN: 1843390787 · December 2005 · 384 pages · Hardback
IWA Members Price: £60.00 / US\$120.00 / €90.00

* Activated Sludge Separation Problems *

Theory, Control Measures, Practical Experience



Editors: V Tandoi, D Jenkins, J Wanner

This report describes the main reasons for the growth of the microorganisms in activated sludge, and the biological molecular tools today available for the identification of the main biomass components. The wide range of experiences around the world is documented and the methods to avoid the proliferation of these organisms are presented and critically reviewed.

Scientific and Technical Report No. 16

ISBN: 1900222841 · January 2006 · 232 pages · Paperback
IWA Members Price: £52.50 / US\$105.00 / €78.75

* Mathematical Modeling of Biofilms *



Author: IWA Task Group on Biofilm Modeling

Whether we want to promote good biofilms or eliminate bad biofilms, we need to understand how they work and what works to control them. Mathematical models help us understand the complex phenomena that occur in biofilms. This report provides the foundation to understand the models and to select the most appropriate one for a given use.

Scientific and Technical Report No. 18

ISBN: 1843390876 · January 2006 · 208 pages · Paperback
IWA Members Price: £48.75 / US\$97.50 / €73.50

* Water Rights *

An International and Comparative Study



Author: Desheng Hu

This book identifies the essential elements a well-structured water rights system. It is the first to discuss water rights holistically, putting the three aspects of water rights (the property right of water resources, the human right to water and the environmental right to water) into a single, wellorganised water rights system under the principle of sustainable development.

Water Law & Policy Series

ISBN: 1843391082 · February 2006 · 208 pages · Hardback
IWA Members Price: £45.00 / US\$90.00 / €67.50

* Municipal Wastewater Management in Developing Countries *

Principles and Engineering



Editors: Zaini Ujang, Mogens Henze

This comprehensive reference, dealing with municipal wastewater management in developing countries, is prepared by leading international authorities, and will provide an invaluable reference for all those concerned with the management of sanitation services in developing countries worldwide.

ISBN: 1843390302 · January 2006 · 352 pages · Hardback
IWA Members Price: £52.50 / US\$105.00 / €78.75

* Pond Treatment Technology *



Author: A Shilton

This book reviews how pond systems work and provides guidelines for their application. Readers are provided with an initial overview of the technology and then the science of the pond environment is discussed in detail. From this scientific grounding the book provides design guidelines, reviews specific applications and variations of the technology and finally concludes with a number of practical case studies.

Integrated Environmental Technology Series

ISBN: 1843390205 · January 2006 · 480 pages · Hardback
IWA Members Price: £71.25 / US\$142.50 / €107.25

* Hydrology and Water Law: Bridging the Gap *

A Case-study of HELP Basins



Editors: J Wallace, P Wouters

With 'integrated water resources management' the current buzzword in international circles, the real question is: how to operationalise a truly multidisciplinary approach to the effective management of shared watercourses. This book will act as a guide to how future water laws and policies can be made more effective via the use of accurate and up to date hydrological information.

Water Law & Policy Series

ISBN: 1843390701 · February 2006 · 380 pages · Hardback
IWA Members Price: £52.50 / US\$105.00 / €78.75

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



Authors: V Nassehi, DB Das

This book provides concise, up-to-date and easy-to-follow information on an increasingly important area of hydro-environmental analysis and management. It covers important aspects of both surface and subsurface water quality management, however, the main emphasis of the book is on the practical development and application of computer based algorithms, via appropriate schemes, to realistic problems.

ISBN: 1843390450 · February 2006 · 344 pages · Hardback
IWA Members Price: £66.75 / US\$133.50 / €100.50

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International
Water Association

Project Innovation Awards

International Excellence in Water Engineering Projects

The newly launched **IWA Project Innovation Awards programme** recognises excellence and innovation in water engineering projects throughout the world.

Key Features of the Programme

- recognises excellence and innovation in project conception and results
- focuses on engineering and water
- builds on national awards programmes to create a set of regional and global awards

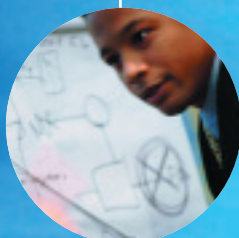
Categories

- applied research projects
- planning projects
- design projects
- operations/management

Cycle

- winners and runners-up of regional awards will be advanced for consideration in the global awards
- global awards will be announced at the IWA Biennial Congress every 2 years commencing at the IWA World Water Congress 10-14 September 2006, Beijing, China

Individuals, companies, organisations and governmental bodies are eligible to submit for this awards series.



Interested? For more detailed information visit <http://pia.iwahq.org>

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