



# Member Newsletter

## 2 World Water Week



## 3 Singapore offices opened



## 4 Vienna World Water Congress



## 6 YWP on Sanitation



## 9 Specialist Groups



## Cool Under the Heat of Climate Change – by IWA Chief Executive, Paul Reiter

One day, it stopped raining in Perth, Australia. Actually, it didn't happen in a day or a month. But in as little as one decade, the stream flows into Perth's reservoirs fell by one-half, and they were already down by one-half from levels in the mid-1970s. Can you imagine being responsible for supplying water supply to a city the size of San Diego and having to come to terms with the fact that your principal source of supply – reservoirs fed by rain – were dry holes?

This is the situation that Jim Gill, the Chief Executive of Water Corporation of Western Australia, and his management team have found themselves in over the past 7 years. And while others might have "melted" under the pressure of these circumstances, Jim and his team kept their cool and have emerged as real leaders in the challenging new circumstances facing water suppliers in many parts of the world, particularly Australia.

A big part of the near term solution to Perth's water shortfall is a very large and sophisticated desalination plant that was constructed in record time and features a zero carbon footprint power supply. And as significant as this plant is, what has really impressed me and others is Perth's fundamental rethink of their overall resource strategy of which the desalination plant is but one (albeit large) element.

The late Gary Meinck, a highly admired member of Jim's management team coined the term "security through diversity" and helped spearhead the adoption of a new portfolio-based approach to

water resources development. Instead of concentrating on "the" next source of supply, as has been the case for many water suppliers in this century, Perth, Singapore and the Gold Coast, Australia, to name a few of the leaders, have adopted a portfolio-approach to developing new supplies – combining aggressive levels of conservation and leakage reduction with reuse, desalination, storm water recovery and water trading.

It seems to me that by thinking of water resource development in portfolio terms, Perth and other like-minded utilities faced with very limited resources are in a better position to minimise financial and supply source risks, in much the same ways that portfolios help reduce the risks associated with financial investments. At the same time, a portfolio approach can help optimise a utility's environmental strategy, leading to more sustainable solutions over time.

A combination of population growth in dry areas, urbanisation, climate change and rising environmental standards are placing more and more utilities in the position of having to cope with significant increases in demand in the face of scarce resources. Increasingly, the utilities will also need to turn to the cities that they serve and work with the Mayors, city planners and others to engineer new urban forms that together with the actions of the utilities result in a significantly smaller ecological footprint for the urban area.

In this context, cities need to work together and ultimately, to learn a lot from each other in shaping the



future for water and urbanity in what some would say are urgent circumstances. To this end, IWA is planning to partner with our members in organising a series of city-focussed workshops in Perth, Las Vegas, Tianjen, and Madrid. In so doing, I hope to see a coming together of several groups and initiatives – the key Specialist Groups, Cities of the Future (sponsored by CDM), the Dry Area Forum Global Task Force. I am convinced that working together, we can both further practical solutions and sustainable outcomes.

The first of the city workshops will be held in Las Vegas in April 2008 under the leadership of Pat Mulroy, Managing Director of both the Las Vegas Water District and the Southern Nevada Water Authority. Las Vegas is a great case study in how providing for one city's water needs (fastest growing city in the US) requires leadership and cooperation across two countries, five states, and 25% of the United States' economy. In the meantime, stay in touch and watch this space!

## IWA News Update

### 2007 Stockholm Industry Water Award Recipient is PUB Singapore

Stockholm, May 24, 2007 – An holistic approach to water resources management has earned PUB Singapore the 2007 Stockholm Industry Water Award. The prestigious distinction will be presented on August 15 during the 2007 World Water Week in Stockholm.

PUB is the national water agency in Singapore charged with water, wastewater and stormwater management. It services about 4.5 million people, including major industries with intensive water use.

Water resources management in Singapore - a small but densely populated island city state - is challenging. PUB's approach has resulted in a lower dependence on external water sources through diversification such as water re-use, desalination, stormwater storage in new water storages and supply of high quality recycled water.

In its own operations PUB has significantly reduced water losses due to pipe leakage and

inaccurate meters. It has 100% servicing of its population with water/wastewater services, and strong political and public acceptance of its policies and services. Through a major change in water pricing and access policy - which aims to use the rate structure to encourage the more efficient use of water - PUB has been able to lower the costs of an improved product. Reclaimed water, branded NEWater in Singapore, is recognised for its quality. Singapore has also been able to maintain low costs for households, despite the major capital investments in new equipment and systems. Its 'Water Efficient Homes' campaign helps residents to save water and reduce their water bills.

Through extensive partnership with the water industry, it has been a model of skills outsourcing. The industry is now capable of transferring this knowledge to the region, and of attracting a range of capabilities and research to Singapore.

"PUB has succeeded in combining all the complex components of a well functioning water management system that has been accepted by the general public, business and industry," says Lars Gunnarsson, chairman of the Award Committee. "The PUB story would fit well as a study in the education of water managers. This is an exemplary model of integrated water management in a framework of good policy and innovative engineering solutions."

#### About the Stockholm Industry Water Award

The Stockholm Industry Water Award is an honorary award that recognises innovative corporate development of water and wastewater process technologies, contributions to environmental improvement through enhanced performance in production processes, new products and other significant contributions by businesses and industries that help improve the world water situation. It was established in 2000 by the Stockholm Water Foundation in collaboration with the Royal Swedish Academy of Engineering Sciences and the World Business Council for Sustainable Development. An award committee established by the Royal Swedish Academy of Engineering Sciences reviews the submissions and selects the winning company. The committee contains representatives of the Academy and of the Global Water Partnership, International Water Association, Stockholm Water Foundation, World Business Council for Sustainable Development as well as leading academics of water sciences.

Previous recipients include the Sydney Water Corporation, Australia; Procter & Gamble; the Staple Fibre Division of Grasim Industries Ltd, India; ZENON Environmental Inc, Canada; Kaldnes Miljøteknologi AS, Norway; The General Motors de Mexico Ramos Arizpe Complex, Mexico; and Northumbrian Water Limited, United Kingdom.

For more information, visit [www.siwi.org](http://www.siwi.org)



### World Water Week, Stockholm 2007

The annual World Water Week in Stockholm (August 12-18) again sees IWA playing a prominent role in the organisation of workshops and seminars. The Association is responsible (either jointly or wholly) for the following events:

#### **Workshop 3: Progress on Management Reforms for Better Services (Wednesday 15 August, Full Day)**

**Convenor: Stockholm International Water Institute (SIWI); Co-Convenors: International Water Association (IWA)**

Institutional reform and development are key elements of the integrated approach to water resources management. Well-functioning institutions are needed for good policies to be implemented and laws enforced. The need for more action is clear, but institutional arrangements often militate against effective action. In many countries human resources are inadequate to meet the challenges set by the Millennium Development Goals (MDGs) and the World Summit on Sustainable Development (WSSD) targets. Often, international organisations

and non-governmental organisations (NGOs) look for quick fixes instead of engaging the sensitive and painful process of reforming institutions. Similarly, governments are reluctant to implement the politically difficult reforms essential for targets to be met. Recently there has been a greater focus on improving the management of water services, but how much impact has this had in practice? Is dialogue leading to action? Are the many overlapping programmes supported by donors and executed by international bodies, NGOs and consultants making a significant difference to the institutions they aim to improve, or are they just making everyone's life more difficult?

As the halfway point to 2015 approaches, this workshop will focus on the progress being made on management reforms to improve service delivery. What practical progress has there been? Are better functioning institutions being established that will enable the water sector, public or private, to meet the MDGs? How do we overcome the impacts of short-termism, corruption, self-interest, etc.?

**Seminar: Sanitation 21 – Let's Do Planning and Design Better (Wednesday 15 August, Afternoon)**

**Convenors: International Water Association (IWA), Stockholm Environment Institute (SEI) and Swedish Water House (SWH)**

Conventional approaches to sanitation planning and design fail with depressing regularity. In developing country situations where coverage is low, current efforts result in frequent failures which perpetuate low access to services or short-term failures in operation and maintenance. Increasingly, evidence shows that technical planners and designers must be smarter at planning systems which are responsive to the needs of the developing city, its authorities and citizens. This requires a sea-change in technical decision-making, so that it can respond better to the human and political context in which it is made. Paradoxically, the analytical thinking required is not rocket science; it draws on well-established principles of good planning and design practice from both technical and development communities. Presenters will discuss what is going wrong with conventional approaches to sanitation planning, and how we might chart a better way forward. The seminar will challenge all of us to review our own technical biases and find ways of employing sanitation systems better to meet the enormous challenges, particularly in developing countries.

IWA and IWA Publishing will be further represented through an exhibition booth in Stockholm. For further information, contact Bernie O'Neill ([Bernie.oneill@iwhq.org.uk](mailto:Bernie.oneill@iwhq.org.uk))

## Global Development Solutions news

Recent activity from the Global Development Solutions programme highlights the following points of interest:

### Outcome from first Africa Water Operators Partnership workshop, South Africa, April 2007

Following extensive discussion throughout a two day workshop (both the plenary discussions and in side meetings), the Water Operator Partnership (WOP) meeting participants resolved that the African Water Association (AfWA) and IWA-ESAR (the East and Southern Africa Regional grouping) should take the lead in facilitating the initiative. IWA-ESAR's role will be in supporting the Africa WOPs secretariat (to be based in South Africa) and in Chairing the Programme Committee for WOPs which will provide guidance, coordination and liaison with donors in this utility to utility initiative. Further discussions with AfWA are planned in the coming weeks to prepare the ground for the establishment of the WOPs secretariat. The Water Operators Partnership is an effort to strengthen the capacity of utilities in low and middle income countries through a

twinning, mentoring and expertise exchange programme.

### Recognition of professional associations role in development by UK government

In July 2006, the International Development Committee of the UK House of Commons announced an inquiry to examine how the Department for International Development (DFID) is fulfilling its increasing commitment to sanitation and water, and to assess multilateral efforts to secure progress. Around 50 stakeholders contributed to a substantial volume of written evidence, representing a wide range of development actors. In the outcome from the report, which will impact on the further policy direction and activities of the Department, it was recommended that: "DFID should build a more formal relationship with professional water associations which can assist in brokering expertise between countries experiencing similar technical problems in their water systems, using methods such as responsive twinning and mentoring to provide support for water operators in developing countries". IWA was represented through formal written evidence and through expert witness statements provided by Dr Darren Saywell, Development Director in the London office.

### Key Outcomes from a meeting of the East and Southern Africa Region (ESAR) Executive Committee, 23 April 2007

At the recent meeting of the Executive Committee of IWA-ESAR grouping in South Africa on 23 April, 2007, the following outcomes were noted:

- It was agreed that ESAR will explore the potential of co-hosting a CEO utility event alongside the WISA biennial conference in Sun City, South Africa, May 2008
- In principle agreement was given by the Executive Committee to explore the option of developing an IWA reference centre for the ESAR region, based on the norms proposed by the London office. Given developments with the role of ESAR in the Water Operators Partnership (WOP) initiative and the establishment of a Secretariat to support the WOP programme, hosted by Rand water, the Executive Committee suggested that the reference centre should co-locate with the WOPs secretariat.

Further information and news about the programme is available via the website: [http://www.iwahq.org/templates/ld\\_templates/layout\\_633184.aspx?ObjectId=634209](http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=634209) or by contacting Dr Darren Saywell, Development Director at the IWA London Office (email: [darren.saywell@iwahq.org.uk](mailto:darren.saywell@iwahq.org.uk))

## Launch and Opening of IWA Singapore Office

### Tuesday 5th June 2007

IWA is pleased to announce the opening of an IWA office in Singapore. The launch of this office happened during the 4th IWA Leading-Edge Technology Conference that took place at Swissotel the Stamford, Singapore on 3-6 June 2007.

Located within the WaterHub, PUB's centre for technology, learning and networking, the IWA office will offer a meeting and working space to better serve IWA's members, stakeholders and collaborators in the Asian region. The office will serve as the Asian hub for coordinating IWA outreach programme and knowledge exchange activities, enabling IWA to connect more effectively with the Asian water community and assist in the development of sustainable water management in the region.

The Guest of Honour for the official opening of the IWA office was Dr Amy Khor, Senior Parliamentary Secretary from the Singapore Ministry of the Environment and Water Resources. We were also joined by Professor Perry McCarty, Silas H. Palmer Professor Emeritus at Stanford University, IWA President Dr David Garman, the IWA Board of Directors as well as key representatives from the water industry in the region and from around the world.

Contact: Ryan Yuen ([ryan\\_yuen@pub.gov.sg](mailto:ryan_yuen@pub.gov.sg)) for further information.



From left to right: Mr. Khoo Teng Chye - PUB Chief Executive, Tan Gee Paw - PUB Chairman, Dr Amy Khor- Senior Parliamentary secretary Singapore Ministry of the Environment, Dr David Garman- IWA President, Paul Reiter- IWA Chief Executive

Dr Amy Khor – Guest of Honour for the official opening of the IWA Singapore office.

## Singapore hosts IWA Leading Edge Technologies conference



Jonathan Clement

Jointly organised by IWA and Singapore's water utility PUB, the IWA Leading Edge Conference on Water and Wastewater Technologies held on 3-6 June welcomed more than 380 water experts and researchers from around world to share and discuss the latest advances and applications in water and used water treatment.

On Sunday 3 June, the delegates from 42 countries (51% from Asia, 18% from Europe, 15% from America, 10% from Oceania and 6% from Africa) also had the opportunity to visit, among other things, the NEWater center, the Changi Water Reclamation Plant and the SpringSpring plant.

The conference opened with a presentation from the 2007 Stockholm Water Prize Laureate Perry McCarty entitled 'Gases emitted from microbiological water treatment processes and their global impact'.

On 4 and 5 June, LET2007 was divided into two streams - Drinking Water and Waste Water - and discussed the following topics:

- Advanced oxidation for drinking water

- Membranes for water treatment
- Nanotechnology in water treatment
- NOM removal
- Capturing the energy value from wastewater and sludge
- Membrane bioreactors
- Nutrient removal and recovery
- Technologies for biosolids management

During LET2007 there was also a Chief Technology Officer roundtable discussion in which representatives of world-leading companies gave their points of view on the present and future development of water technology. The companies that were represented at this discussion were ITT, Siemens, Black & Veatch, Water Corporation of Western Australia, CH2M Hill, GE and PUB Singapore.

The conference closed on the 6 June, when Jonathan Clement stepped down as chair of the programme committee. Jonathan welcomed Bruce Rittmann in this position and gave him his support in for the LET2008, to be held in June 2008 in Zurich, Switzerland.



## Invitation to join us in Vienna

The International Water Association (IWA) is inviting the world water community to join 3,000 colleagues, companies and other organisations in Vienna, Austria at the IWA World Water Congress and Exhibition to be held from 7-12 September 2008.

IWA President Dr David Garman said, "The Vienna congress and exhibition next year will provide a valuable opportunity for 3,000 members of the world's water community to meet, exchange ideas, explore the state of the art and debate the key issues underlying the science and practice of water."

### DELEGATES & PRESENTERS

Organisers are urging intending delegates to start planning now and to consider submitting a paper for inclusion in the scientific and technical programme. Please note that the call for papers deadline is 15 September 2007.

The themes of the congress are water resources and river basin management, water treatment, wastewater treatment, design and

operation of water systems, managing and planning water services and health and the environment. There will also be three cross-cutting themes of climate change, sustainable development and urban water management.

IWA Congress President Walter Kling is particularly interested in receiving papers emanating from the Danube region. "Located in the heart of Europe and with a common European cultural and economic area triggered by EU enlargement," he said, "the Danube's characteristic features have left their imprint on the region's landscape, people and history. These factors combine to demand a considerable degree of trans-national cooperation in the interests of sustainable water management."

### SPONSORS

The organisers are pleased to announce that major sponsorship has already been secured. The City of Vienna is partnering IWA in the event; the principal sponsors are Siemens, Suez and Veolia Water, with ITT as a platinum sponsor.

A limited number of gold sponsorships are now sought. Sponsorship spotlights a company or organisation as a major player in the global water scene. Sponsors receive maximum exposure throughout the event and are given full VIP treatment at technical, social and business networking functions.

### EXHIBITORS

The Vienna World Water Congress and Exhibition will take place concurrently over five days. Exhibition Manager Roy Agterbos said intending exhibitors will have the opportunity to promote their products and services in an exclusive environment to a top-class world audience. "In addition to leading professionals from around the world, the exhibition will draw the top water professionals from both the international community and Eastern Europe," he said.

"The exhibition will have limited stand space in order to balance the congress size with the exhibition. Space will be allocated on a first-come, first-served basis. Besides the congress delegates, you can expect exhibition-only visitors to attend as well. Currently over 57% of the available space has been booked."

Details of the congress themes, sponsorship packages and exhibition floor plan are available at [www.iwa2008vienna.org](http://www.iwa2008vienna.org)

### Further information

**Conference:** email [2008vienna@iwahq.org.uk](mailto:2008vienna@iwahq.org.uk), tel. +44 20 7654 5500

**Exhibition:** email [roy.agterbos@iwa-exhibitions.com](mailto:roy.agterbos@iwa-exhibitions.com), tel. +31 23 7505105

# Bonn Network Founding Members

**B**  
**O**  
**N**  
**N**  
**E**  
**T**  
**W**  
**O**  
**R**  
**K**

...A global network of water suppliers committed to providing good safe drinking water...



Network Host

Network Partner



## Bonn Network Founding Members

Aguas de Portugal (Portugal)  
Bournemouth and West Hampshire Water (UK)  
Lyonnaise des Eaux (France)  
Rand Water (South Africa)  
Seattle Public Utilities (USA)  
Severn Trent Water (UK)  
Water Corporation (Australia)  
South Australian Water Corporation (Australia)  
South West Water (UK)  
Sydney Water (Australia)  
Three Valleys Water (UK)  
National Water & Sewerage Corporation (Uganda)

## History of the IWA Bonn Charter for Safe Drinking Water...

2001... Bonn I Workshop  
2004... Bonn II Workshop  
2004... Launch of the IWA Bonn Charter for Safe Drinking Water  
2007... Launch of the Bonn Network

## About the Bonn Network...

The aim of the first Bonn workshop was to

initiate the development of a framework to assure the provision of good, safe drinking water in the 21st century; this framework was refined during the second workshop in 2004. Later that same year, the Bonn Charter was launched, along with the 3rd Edition of the WHO Guidelines for Drinking-water Quality. Both of these documents promote the framework for safe drinking water, a core component of which are Water Safety Plans. Since 2004 IWA and WHO have worked together to disseminate and promote the implementation of the framework and Water Safety Plans. IWA is now supporting water suppliers in the implementation of the Bonn Charter through the establishment of an international network of water suppliers...the Bonn Network.

## Activities of the Bonn Network...

As the Network host, IWA will provide exclusive opportunities for Network members to interact and exchange knowledge, including web-based workshops, best practice workshops and regular newsletters.

To support Network members in the implementation of the Bonn Charter, Cranfield University will coordinate a three year research programme and provide technical support. The research programme will be tailored to meet the needs of Network members with a focus on risk management.

## Bonn Charter Resources

**Drinking Water Safety Pamphlet • pdf 1 MB**  
[http://www.iwahq.org/uploads/bonn%20charter/IWA\\_DWS\\_2005.pdf](http://www.iwahq.org/uploads/bonn%20charter/IWA_DWS_2005.pdf)

**Bonn Principles Series No 1: The Pivotal Role Of Water Safety Plans • pdf 43 KB**  
[http://www.iwahq.org/uploads/bonn%20charter/Bonn\\_Principles\\_1\\_WSP.pdf](http://www.iwahq.org/uploads/bonn%20charter/Bonn_Principles_1_WSP.pdf)

**Bonn Principles Series No.2: Institutional Arrangements and Drinking Water Quality • pdf 43 KB**  
[http://www.iwahq.org/uploads/bonn%20charter/Bonn\\_Principles\\_2\\_IA.pdf](http://www.iwahq.org/uploads/bonn%20charter/Bonn_Principles_2_IA.pdf)

**Bonn Principles Series No.3: Public Health Protection Demands Effective Communication • pdf 43 KB**  
[http://www.iwahq.org/uploads/bonn%20charter/BP3\\_Effective%20Communication.pdf](http://www.iwahq.org/uploads/bonn%20charter/BP3_Effective%20Communication.pdf)

**Bonn Principles Series No.4: The Price of Water • pdf 43 KB**  
[http://www.iwahq.org/uploads/bonn%20charter/Bonn\\_Principles\\_4\\_WP.pdf](http://www.iwahq.org/uploads/bonn%20charter/Bonn_Principles_4_WP.pdf)

**Bonn Principles Series No.5: Setting Standards • pdf 43 KB**  
[http://www.iwahq.org/uploads/bonn%20charter/Bonn\\_Principles\\_5\\_SS.pdf](http://www.iwahq.org/uploads/bonn%20charter/Bonn_Principles_5_SS.pdf)

**Discussion Forum Synthesis: Institutional Arrangements and Drinking Water Quality (Dec 2006) • pdf 176 KB**  
[http://www.iwahq.org/uploads/bonn%20charter/IWA\\_DWQP\\_20DISCUSSION\\_FORUM\\_DEC2006.pdf](http://www.iwahq.org/uploads/bonn%20charter/IWA_DWQP_20DISCUSSION_FORUM_DEC2006.pdf)

**Discussion Forum Synthesis: The Price of Water (May 2007) • pdf 165 KB**  
[http://www.iwahq.org/uploads/bonn%20charter/IWA\\_DF\\_Price\\_Of\\_Water.pdf](http://www.iwahq.org/uploads/bonn%20charter/IWA_DF_Price_Of_Water.pdf)

## Become a Founding Member of the Bonn Network...

For the first three years the Network will be restricted to twenty members, after three years the Network will look to expand its membership and activities. There are still opportunities for your organisation to become a founding member of the Bonn Network, if you are interested in joining, or require further information please see: the IWA website or email [tom.williams@iwahq.org.uk](mailto:tom.williams@iwahq.org.uk)

# IWA Members Discuss The Price of Water



A recent discussion forum, hosted on the IWA website, focussed on the price of water and IWA members were invited to join in the online debate. One of the key principles of The Bonn Charter for Safe Drinking Water states that: the price of water should be set so that it does not prevent consumers from obtaining water of sufficient quantity and quality to meet fundamental domestic needs.

Topics discussed in the forum gave an

insight into how this outcome could be achieved in a range of circumstances, with participants providing insights into practices within specific countries and suggesting resources to support decision-making. There was a strong emphasis on the roles and responsibilities of governments; for example, in setting tariffs and providing subsidies. Another idea discussed was for water utilities to identify the full cost of service provision (including the maintenance and replacement of assets). The clear division of roles and responsibilities and the application of appropriate mechanisms to support the effective

management of drinking water is a recurring theme throughout the Bonn Charter and this discussion forum provided an opportunity for IWA members to discuss the various mechanisms being used around the world to set the price of water so as it is provided in sufficient quantity and of good safe quality.

To see a full version of the discussion forum synthesis, please visit the Drinking Water Quality pages of the IWA website. If you are interested in proposing a topic for an IWA online discussion forum, please contact [tom.williams@iwahq.org.uk](mailto:tom.williams@iwahq.org.uk)

## The YWP Programme is hands-on Sanitation

The Young Water Professionals Programme and the IWA's Global Development Solutions programme have joined forces and will work together on 'Sanitation Connection', or SANICON.

SANICON is an online web based platform where people interested into the issues of sanitation can obtain bibliographic and other resource materials on the subject. IWA was one of five founding members of this site, which still regularly receives up to 50,000 user visits per month.

In line with the International Year of Sanitation, 2008, IWA would like to take a more proactive role in the management and further development of this website. IWA believes that this represents an opportunity for our Young Water Professionals to be engaged and involved in this flagship initiative which will receive much public and professional attention in the forthcoming 12 months.

The Young Water Professionals Programme will create a SANICON core group that will be:

- Reviewing overall site content against a broader framework of development (i.e., working to address gaps in the regional, thematic and topical pages);
- Where appropriate, developing new content for the site in relation to subject and topics



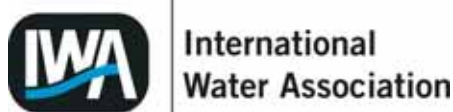
which core group partners consider of high priority;

- Some administrative work in maintaining and updating existing pages within the site – checking on web links, references, ensuring that designated contact persons are contactable;
- Helping to maintain the currency of the site through collection of news items; supporting

communication and promotion of the site through events, conferences and other YWP activities

If you are interested in getting involved in this exciting project, and you are an IWA Young Water Professional, you will need to forward to [ywp@iwahq.org.uk](mailto:ywp@iwahq.org.uk) your CV and two short paragraphs indicating why you would like to be involved by the 1st of July 2007.

## Expressions of Interest for Watsan and/or other Environmental Health Experts to Assist WHO-IWA in International Emergency Response



In order to strengthen its capacities for international environmental health response to emergencies, the World Health Organisation (WHO), with support and in partnership with the International Water Association (IWA), is seeking expressions of interest from suitable expert candidates who will pre-qualify for a Roster of Environmental Health Experts for deployment into crises and disaster situations.

Candidates will be expected to work in difficult disaster and emergency situations as part of an international humanitarian system with the main aim to provide technical guidance and support in the rehabilitation of damaged or destroyed water and sanitation systems and/or other environmental health related services. Specifically, WHO is seeking candidates that are very familiar with Watsan issues of Health Care

Facilities (Hospitals, Health Centres, isolation health centres, etc.) and to undertake investigations of Watsan related disease outbreaks. Furthermore, WHO is seeking candidates that are familiar with other environmental health aspects in emergency response (e.g. related to unexpected and uncontrolled release of chemical, exposure, dose and effects; or other than water related environmental health risks to infections and non-infectious disease outbreaks).

Note that suitable candidates for the roster will receive pre-deployment training provided by WHO. On successful completion, selected candidates will be expected to prepare and plan appropriately for possible deployments, including obtaining in advance workplace permissions, security training and briefings, vaccination, etc.

Typical duties of the Watsan and/or environmental health expert deployed will include: (i) assessment of the Watsan and/or environmental health situation; (ii) provision of technical advice and support to the Ministry of Health in dealing with Watsan and/or environmental health issues; and (iii) assistance with the design and implementation of plans to

supply, rehabilitate damaged or destroyed Watsan systems (especially relating to health care facilities) as well as other environmental health services. In addition, candidates might be asked to coordinate the international Watsan and/or environmental health response (especially concerning healthcare facilities) and to strengthen local human capacities through training.

WHO is seeking candidates with a degree in engineering, public health, environmental health or related field, with a minimum of five years' experience in the field of Watsan and/or environmental health. Work experience in emergency situations, especially in developing countries is particularly advantageous. Candidates should have a very good knowledge of English, with preferably good knowledge of one other WHO official language.

Candidates should apply to the IWA London office for further information and details relating to the application process. WHO, in collaboration with the IWA, will select potential candidates; only selected candidates will be informed by WHO/IWA about appropriate next steps. All queries should be directed to: [em-water@iwahq.org.uk](mailto:em-water@iwahq.org.uk)

# 60 second interview – Christian Zurbrugg

**Christian Zurbrugg**

**Head of Department & Programme Officer Solid Waste Management**

**Eawag: Swiss Federal Institute of Aquatic Science and Technology**

**Department of Water and Sanitation in Developing Countries (Sandec)**

**Dübendorf, Switzerland**

Christian Zurbrugg heads the Department of Water and Sanitation in Developing Countries (Sandec) at Eawag, the Swiss Federal Institute of Aquatic Science and Technology. After a Master's degree in Geology and work experience in environmental consulting, he continued his education with a postgraduate degree in Water Resources Management and Environmental Protection at the Swiss Federal Institute of Technology (ETH) & Eawag. He then worked as a researcher in the field of surface hydrology and flood protection at the Laboratory of Hydraulics, Hydrology and Glaciology (VAW) at ETH Zurich as well as the University of British Columbia, Vancouver, Canada and in 1998 started working at Sandec/Eawag as programme officer in the field of solid waste management in developing countries. His research in Benin, Burkina Faso, Tanzania, Pakistan, Bangladesh, India, and Chile aimed at better understanding the determinants of urban decentralised organic waste composting to develop recommendations and guidance for practitioners. His current research activities aim at linking innovative technical waste treatment and management options to strategic solid waste infrastructure and service planning. He also supervises Master and PhD students and is active in improving training and education in practitioners as well as student curricula.

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

The specific target 10 and 11 of the Millennium Development Goals (MDGs) has given significant awareness and momentum to all international and many national stakeholders in the sector of water and sanitation. Including "access to adequate sanitation" in the MDG target 10 was a major achievement to significantly raise the profile of sanitation leading to increased focus on this sector. This has further led to the realisation that in order to achieve sustainable, improved access to water and sanitation services, approaches need to be first and foremost people-centered and that traditional sewerage-based sanitation approaches alone can not solve the sanitation challenge.

In water supply there is increased awareness and evidence that household water treatment and safe storage interventions can

lead to dramatic improvements in drinking water quality and reductions in diarrhoeal disease, making an immediate difference to the lives of those who rely on water from polluted rivers, lakes and, in some cases, unsafe wells or piped water supplies. This momentum to further develop and implement such approaches has been significantly strengthened by the "International Network to Promote Household Water Treatment and Safe Storage".

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

Given the realisation that "people matter" and people-centred approaches are key to sustainable water and sanitation, professionals – primarily the water and sanitary engineers – must admit to their disciplinary limitations and foster more collaboration with social scientists and economists. Technology developments however are not to be discarded as they set the foundations for sustainable solutions in infrastructures with their operation and maintenance implications. Furthermore, future focus must prioritise integrated approaches where strategic decisions in water supply are closely coordinated with sanitation, drainage and solid waste management approaches while always keeping a lookout for closed loop recycling principles and user's perceptions and needs.

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

Starting with her excellent publication on "Environmental Management of Urban Solid Wastes in Developing Countries" in 1982, Sandra Cointreau, now Solid Waste Advisor at the World Bank, has set the scene for much research and projects in solid waste management of low and middle income countries. Her experience in a multitude of cultural contexts and her continuing advocacy for giving priority to waste management has motivated municipalities and researchers to commit their resources and interest to this topic, thus building local capacity and strengthening expertise in the sector.

Furthermore, I was strongly inspired by Armon Hartmann, now retired senior water advisor of the Swiss Agency for Development and Cooperation (SDC). His interdisciplinary competences and expertise together with his vast field of experience, continuous good mood

and commitment to the cause have always provided me with the necessary incentive and motivation to continue with this interesting work despite eventual setbacks.

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

An important publication is the "Household Centred Environmental Sanitation (HCES) Guideline" prepared in close collaboration between Eawag/Sandec, Kalbermatten Associates and the Secretariat of the WSSCC. This Guideline for decision-makers has been developed to provide guidance on how to implement the Bellagio Principles by applying a planning process which departs from the centralised planning approaches and puts the household and the neighbourhood at the core of the planning and decision-making process. The planning approach is currently being field-tested in Africa, Asia and Latin America. Ideally other research partners and development agencies should also include this planning approach in their programmes so as to gain more field experience.

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

IWA plays an important role for stimulating professional exchange, coordinating and fostering research focus and policy making. In the developing country context, enhancing professional associations and quality of academic and educational organisations as well as encouraging scientific exchange and knowledge dissemination are essential for advancing in the sector. IWA can play a



fundamental role to bring together donors, local authorities, researchers and consultants to establish a platform of exchange and furthermore act as a resource centre and facilitator for ongoing debates and knowledge management in order to promote informed decision-making in water and sanitation.

### **A review of significant work interests, specialisms**

Sanitation in the developing world is still low on the priority list. Sanitation affects people's health and wellbeing and deficient sanitation infrastructures and services severely threaten people's livelihoods and contribute to poverty.

Research on appropriate concepts and technologies is desperately needed as "transfer of technologies" from North to South is definitely neither adequate nor feasible. However, current research in the sanitation sector – practically exclusively – focuses on issues which primarily concern the industrialised world (e.g. optimising activated sludge treatment plants, membrane technologies, etc.). In addition, the few research organisations which focus on the context of low and middle income countries are unfortunately not located in the countries which are in need of the solutions. Therefore it is crucial not only to enhance overall research in this specific sector but also encourage and build up research capacities in the affected countries. Both these aspects (e.g. action focused research and capacity building) are two of the main missions of Eawag/Sandec since many years.

### **Identification of fracture points within their discipline – issues of conflict, debate**

In the "sanitation for development" sector, unfortunately there are "schools of thought" which spend much of their energy fighting each other rather raising the profile of sanitation. I

would much rather like to see a constructive debate between these groups where open exchange and debate are held in mutual respect. Rather than pursuing one technology approach in a "one-solution-fits-all" approach, it is now time that experts accept that there are many sanitation concepts and technologies which together can accommodate the highly heterogeneous context of developing countries. Now it is time to encourage and develop together a sound information and knowledge basis for assessing and evaluating the various options in order to assist and facilitate an informed decision making process between users, providers, and authorities for the most sustainable and appropriate solution. Furthermore it is crucial to seriously engage in "getting research into policy and practice (GRIPP)" and avoid that all developments are offset from local authorities and policy makers. The UN-Year of Sanitation in 2008 and the "Sanitation Alliance" are ideal platforms to bring together the various stakeholders for a constructive debate.

### **Forthcoming news of interest from the interviewee in respect of their work programme – publications, workshops, initiatives**

Eawag/Sandec shall continue and expand with further projects for testing of the HCES guidelines. This is considered crucial for gaining more experience in applying a participatory planning processes which put the household and the neighbourhood at the core of the planning and decision-making process nevertheless closely coordinated by the local authorities (i.e. combining a bottom-up and top-down approach).

Further research shall also focus on developing methodologies of risk assessment for environmental sanitation systems in order to

better integrate the concepts of excreta, wastewater and solid waste reuse in urban economic activities while minimising the health risks. Conducting research in partnership with local researcher and stakeholders shall enhance capacity development in research and strengthen local training and teaching activities.

### **Career defining moments; changes in direction or thinking; core lesson learned**

I feel that Sandec's "mode of work", thematic focus and interaction with policy makers and practitioners is a promising approach. Project managers need to interact more intensely with social and economic disciplines and show that interdisciplinarity is not myth but a reality which can result in high impact and sustainable outcomes. One core lesson learned is that there is never a solution which fits for all. The always different socio-economic, technical, institutional and organisational environments ask for an open mind, flexibility and innovation to discover new pathways and solutions.

### **Contact points**

**Christian Zurbrugg**

**Head of Department & Programme Officer Solid Waste Management**

**Eawag: Swiss Federal Institute of Aquatic Science and Technology**

**Department of Water and Sanitation in Developing Countries (Sandec)**

**P.O. Box 611, 8600 Dübendorf, Switzerland**

**Phone: +41 (0)44 823 5423**

**Fax: +41 (0)44 823 5399**

<http://www.sandec.ch/>

[zurbrugg@eawag.ch](mailto:zurbrugg@eawag.ch)

## **Making the most of IWA**

### **ASSESSING THE IMPACT OF YOUR NETWORK**

Whilst membership of IWA brings with it a series of tangible benefits and products (Water 21, for example), the Association is increasingly interested in learning more about how members make use of their membership. To this end, the London office of IWA is launching a short assessment exercise to catalogue and identify the tangible and intangible benefits and value from belonging to IWA.

The purpose of this activity will be to provide an easily readable, concise assessment of the way/s in which IWA members have made use of their membership and the difference that this made to their work in the sector. This activity will support marketing, retention and recruitment of members, and raise awareness of the work and value of IWA members to external parties. Furthermore, it will help the Association in demonstrating the 'value proposition' of membership.

In ensuring consistency with other communication initiatives, this task will sample a range of IWA member segments. Efforts will be made to identify thoughtful and/or provocative interviewees, and short but significant examples to highlight use of the IWA network will be sought. The planned output from the initiative will be summaries of member's experiences of 1-2 pages in length, which will then be communicated throughout the Association's marketing and communication activities. The assessment is planned to take place during 2007, with further information being made available towards the end of this year.

Should you wish to be involved in this short exercise; if you feel that your specialist group has something to contribute to this process; if you can recommend individuals or groups to consider, or wish to comment on the proposed assessment, please contact Darren Saywell at the London office of IWA by email at [darren.saywell@iwahq.org.uk](mailto:darren.saywell@iwahq.org.uk).



# 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](mailto:members@iwahq.org.uk)) and tell us which groups you would like to join.

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

- DEMO4: Design, Operation and Costs of Large Wastewater Treatment Plants
- DEM48: Groundwater Remediation and Management
- DEM29: Membrane Technology
- DEM28: Small Water and Wastewater Systems
- DEM36: Hydroinformatics

## Design, Operation and Costs of Large Wastewater Treatment Plants

The specialist group "Design, Operation and Costs of Large Wastewater Treatment Plants" has at present 782 members worldwide and seeks to act as a platform where designers, operators, manufacturers and scientists can discuss the interactions between their various specialist tasks connected with large treatment plants.

Since Professor Wilhelm von der Emde from the Technical University Vienna, Austria, organised the first Vienna Workshop in 1971, it has been a tradition to organise this workshop every four years in Vienna, Budapest or Prague. Participants of these workshops from all over the world are the driving force behind the specialist group, chaired by Prof Harro Bode, Ruhrverband, Germany. These famous "Vienna-Workshops", with their interdisciplinary approach have a conference format with equal times for presentation and discussion. This means that there is plenty of opportunity for the attendees to actively take part in this workshop. Most important is the participation of practitioners, especially managers and specialists of wastewater treatment plants.

The significance and international character of these conferences is demonstrated by the statistics of the last conference in Prague in 2003: 314 participants, submitting 120 papers and posters, from 44 countries made the conference a great success.



The next conference will be the 10th IWA Conference on Design, Operation and Economics of Large Wastewater Treatment Plants to be held in Vienna on 9 - 13 September 2007 and focuses on case studies, operation, sludge treatment and management, costs and economics, and innovative wastewater treatment technologies. Additionally a workshop "Utility Management" will be part of the programme.

Visit <http://lwwtp07.tuwien.ac.at> for details and registration

The group has an excellent track record of activities within IWA including in the organisation of IWA's biennial Congress which has been, and still is strongly supported by members of this specialist group.

For more details on the group, please go to the groups web page at the following link:

[http://www.iwahq.org/templates/ld\\_templates/layout\\_633184.aspx?ObjectId=633919](http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633919) or contact the Chair: Dr Ing Harro Bode: [bode@ruhrverband.de](mailto:bode@ruhrverband.de) and/or Secretary: Ir Kees De Korte, [keesdekorte@xs4all.nl](mailto:keesdekorte@xs4all.nl)

## Groundwater Remediation and Management

Groundwater, defined as "any water present beneath the earth's surface", is a major source of water for a wide range of beneficial uses. In many countries, groundwater provides more than 50 percent of the water used for potable purposes. It is also widely recognised that groundwater is a threatened resource and widespread water quality degradation and/or contamination has been reported in most countries. From a watershed perspective, all human activities can negatively impact water quality in aquifers and the consequences of these impacts can result in the temporary or permanent loss of the resource, significant expenditures to remediate the aquifer and /or to



remove the hazardous materials from the water prior to use. Resolution of these conflicting resource uses, requires collaboration of both the impacted parties and those responsible for the impacts.

In this context, the Groundwater Management and Remediation Specialist Group will provide a unique forum within IWA to address the full range of scientific, technological, managerial and regulatory policy issues that have arisen over the last two decades in many countries regarding protection, remediation and use of the groundwater resource. We will focus on the causes of anthropogenic threats and impacts to groundwater quality, mitigation measures to reduce these threats and remediate impacts, and managerial strategies to ensure that sustainable use of the groundwater resource can be assured. The Group will address issues of concern to professionals involved with groundwater management and groundwater remediation, as well as issues associated with the use of the subsurface environment for aquifer storage and recovery.

More information about the group can be found on their webpage at the following link.

[http://www.iwahq.org/templates/ld\\_templates/layout\\_633184.aspx?ObjectId=633860](http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633860) or to contact the Chairman Dr. Michael Kavanaugh, [MKavanaugh@pirnie.com](mailto:MKavanaugh@pirnie.com); Vice-Chairman Dr. Neven Kresic, [NKresic@PIRNIE.COM](mailto:NKresic@PIRNIE.COM) and/or Secretary: Dr. Heecheul Choi, [hcchoi@gjst.ac.kr](mailto:hcchoi@gjst.ac.kr)

## Membrane Technology

The objectives of the group are to advance knowledge and experience in the development and implementation of membrane technology for drinking and industrial water production and wastewater treatment.

The group promotes membrane technology for drinking and low quality industrial water production and wastewater treatment in both domestic, industrial and agricultural applications; the group develops and encourages international cooperation towards optimal membrane performance and performance evaluation; supports operational research studies and management modelling of membrane systems; identifies research needs; and develops international technology transfer processes related to the use of membranes for improving the processes of water and wastewater treatment in relation with the regulations.

For further information please view the group's web-page:

[http://www.iwahq.org/templates/ld\\_templates/layout\\_633184.aspx?ObjectId=633926](http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633926)

Group Chairman: Prof. Emeritus Roger Benaim, [benaim@insa-toulouse.fr](mailto:benaim@insa-toulouse.fr); Vice-Chairs: Dr. Chug-Hak Lee, [leech@snu.ac.kr](mailto:leech@snu.ac.kr) and Prof Dr Ing Franz-Bernd Frechen, [frechen@uni-kassel.de](mailto:frechen@uni-kassel.de); Secretary: Prof. How Yong NG [esenghy@nus.edu.sg](mailto:esenghy@nus.edu.sg)

## Small Water and Wastewater Systems

This Specialist Group deals with small water and wastewater systems serving individual households, a group of households or a community. The emphasis is on localised systems that lend themselves to the recycling and reuse of water, and the recycling of nutrients. Small systems promote the closing of the water and nutrient cycles and thus achieve sustainability. More recently the Group's interest has also included package plants and other systems serving small-scale industry. In the past few years the Group has increased its activities with complex systems treating industrial wastewater. The group held a very successful conference in Istanbul, Turkey in September 2002 and in Perth, Australia in February 2004. The last conference - the 7th Specialised Conference on Small Water and Wastewater Systems was held in Merida, Mexico, in March 2006.

The next big conference is the 8th Specialised Conference on Small Water and Wastewater Systems and the 2nd Specialised Conference on Decentralised Water and Wastewater International Network, which is being held in Caimbatore, India on the 6-9 February 2008.

The Small systems have been defined by the IWA specialist group on SWWS as the systems that serve a population of up to 4,000 people equivalent (PE). Within this range, there are very small wastewater systems (one to ten families), medium small (50 to 500 PE) and

large small (500 to 4000 PE) systems. Due to the size, many industrial water and wastewater systems can be included as "small systems."

Every two years, IWA organises a conference on SWWS and DEWSIN to bring together researchers, scientists and professionals working in the field of small and decentralised systems around the world. In this series, the two conferences to be held in Coimbatore will provide a platform for the participants to share their findings within a unique forum and thus help to tackle the water and wastewater problems in small systems that the world is facing now.

These two specialised conferences on SWWS and DEWSIN are jointly organised by the Centre for Water and Environmental Studies (CWES) of the Kumaraguru College of Technology, India and the Laboratory for Environmental Biotechnology (LBE) of the National Institute of Agronomic Research, France. It is supported by IWA, Indian Water Works Association (IWWA), French embassy, and Siruthuli, an Indian non-governmental organisation.

For more information about this conference, please go to the following link: <http://www.kct.ac.in/small2008/>

Information about the specialist group can be found on the group's web-page at: [http://www.iwahq.org/templates/ld\\_templates/layout\\_633184.aspx?ObjectId=633932](http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633932)

Group Chairman: Dr Simon Gonzalez, [gonmar@servidor.unam.mx](mailto:gonmar@servidor.unam.mx); Co Chair: Dr. Kuruvilla Mathews, [K.Mathew@murdoch.edu.au](mailto:K.Mathew@murdoch.edu.au) Secretary: Dr. Jesus Colprim, [J.Colprim@lequia.udg.es](mailto:J.Colprim@lequia.udg.es)

## 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. Hydroinformatics however, is not just an application of Information and Communications Technologies (ICT) to water resources, hydraulics or hydrology. 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, Singapore and Nice). The forthcoming, 8th Hydroinformatics Conference will be held in Concepcion (Chile) – see <http://www.hic2009.org/> for more information – in January 2009 and is expected to attract more than 600 delegates.

In 1998 IWA adopted the Hydroinformatics Section as its own Special Interest Group. At the same time, IWA Publishing established the Journal of Hydroinformatics (<http://www.iwaponline.com/jh/default.htm>), which is presently in its eighth year of publishing. In 1999, the International Association for Hydrological Sciences (IAHS) also adopted the section making it Joint IAHR-IWA-IAHS Hydroinformatics Section. The section maintains its own web site ([www.hydroinformatics-community.org](http://www.hydroinformatics-community.org)) which list by-laws, minutes of meetings and many other hydroinformatics-related resources.

Chairman Vldan Babovic, [vldan@nus.edu.sg](mailto:vldan@nus.edu.sg)

Secretary, Liong Shie Yui, [tmslsy@nus.edu.sg](mailto:tmslsy@nus.edu.sg)

## Membership news

### Membership Survey Individuals and NR surveys announcements

#### Individual Members Survey

In order to continue to meet the needs of our members, it is vital for us to receive feedback on your interests and views. The Individual Members Survey is your chance to voice your opinion about the way in which IWA communicates with you. Based on what you tell us, we will be able to improve the services we deliver. The survey should only take 15-20 minutes to complete and is due to be published on our website in July. Further details to follow...

#### Nominated Representatives Survey

In the next few days we will ask all Nominated Representatives of IWA Corporate Members to answer the IWA 2007 survey. Our purpose is to ascertain the quality of the service IWA provides as well as to gather information on issues affecting the water industry at the local level. Your responses will help enormously IWA work worldwide. Results of the survey will be published in the second half of the year. Please take a few minutes to answer: this is an important chance to be an active part of the main voice in the water industry. Thank you very much in advance to all participants.

### Governing Members of IWA

In the past two months, other active Governing Members have regularised their positions in helping IWA activities with the payment of their 2007 fees. IWA would like to thank the Governing Members from the following eleven countries for their continued support of IWA: Belgium, Denmark, Gibraltar, India, Lithuania, Luxembourg, Macau, Mauritius, Romania, New Zealand and Swaziland.

## New Corporate Members Update

The following list of organisations provides an overview of the type and geographic reach of companies that have recently joined IWA.

- **Inge AG, Germany**  
[www.inge.ag](http://www.inge.ag)

Inge AG is developing innovative ultra filtration technology for the treatment of drinking, industrial and waste water. Their technology reliably removes bacteria, viruses and micro-organisms from water. Their vision is to set new standards in the field of ultra filtration. Thus developing convincing solutions and safest applications.

- **Ultra-Flo PTE Ltd , Singapore**  
[www.ultra-flo.com.sg](http://www.ultra-flo.com.sg)

Ultra-Flo Pte Ltd is an integrated water and wastewater treatment provider with manufacturing of high quality filtration membrane using the latest in polymeric membrane technology.

The company develops, designs and manufactures their own membrane to market individually or together with other components as a system. The membrane filtration system is applicable for the treatment of water and wastewater in consumer, industrial and municipal markets. Ultra-Flo PTE produces high quality low cost polymeric membrane as a basis for delivering affordable water and wastewater treatment solutions.

- **Syrinx Environmental PL, Australia**  
[www.syrinx.net.au](http://www.syrinx.net.au)

Syrinx Environmental PL's expertise is in conceiving and implementing innovative sustainable solutions to the challenges of the natural and built environment.

Specialisation in areas such as wastewater

treatment, ecological restoration, bioengineering, architectural and landscape design have earned Syrxinx an Australia-wide reputation as leaders in these fields.

Syrinx brings to its projects an extensive range of professional services: from vegetation, earth and water sciences through to architecture, landscape architecture and implementation, monitoring and management expertise.

- **GL&V Singapore Pte Ltd, Singapore**  
[www.glv.com](http://www.glv.com)

Founded in 1975, Groupe Laperrière & Verreault Inc. ("GL&V" or "the Company") is a world leader in process technologies, primarily liquid/solid separation solutions used for a large number of industrial, municipal and environmental applications. The Water Treatment Group specialises in the development and marketing of equipment for the treatment of municipal and industrial wastewater, drinking water and water used in various industrial processes, as well as

water intake screening solutions for certain types of power stations and refineries.

- **SYNION EBT S.L. , Spain**  
[www.synion.es](http://www.synion.es)

Synion belongs to a Spanish companies group with more than 30 years of experience in water management and technology. Its mission consists of helping companies, town councils, construction companies, etc. to increase "hydro efficiency" in the development of their activities, using the Best Management Practices (BMP's), offering them our Advisement, our Consulting and Water Saving Plans Management services, and our campaigns to raise public awareness about water.

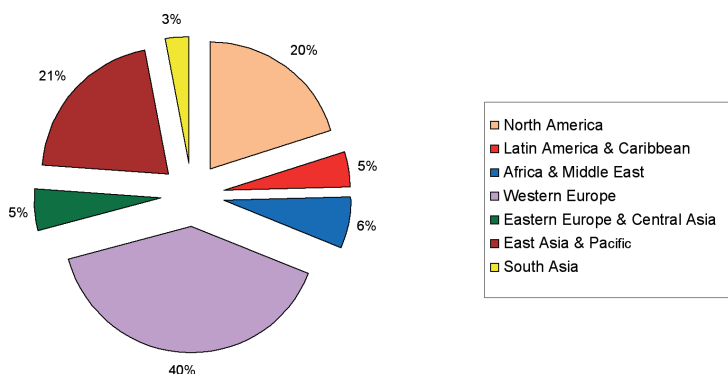
As water saving has positive repercussions in every kind of company's results, and management practices and technologies are useful all over the world and since water is so valuable for humanity, SYNION has a commitment to export its Know How to every country with a need of water saving and control.

### Membership Regional Comparison

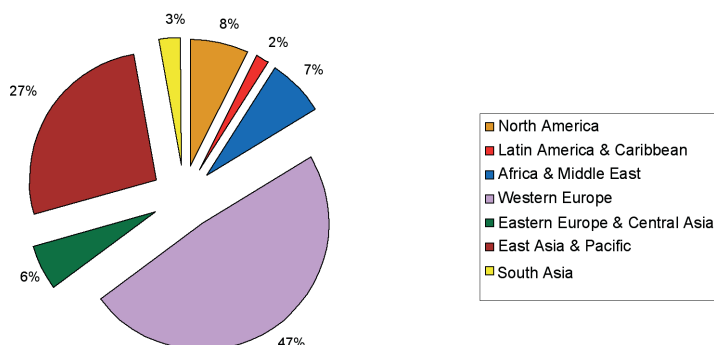
Country	No. of IND Members	Country	No. of CORP Members
United States of America	614	Japan	29
United Kingdom	409	United Kingdom	25
Germany	250	Australia	24
Canada	234	Netherlands	18
Australia	198	United States of America	18
Japan	197	Germany	17
Spain	121	Denmark	12
Belgium	121	Spain	12
Korea, Republic of	117	France	11
Italy*	107	Portugal	11

Table: Top ten countries with the highest number of individual and corporate members

2007 Active Individual Members by Region



2007 Active Corporate Members by Region



# IWA Events update

## Course on Modelling Activated Sludge Plants

14-15 September 2007, Vienna, Austria

In the frame of the 10th IWA Specialised Conference on Design, Operation and Economics of Large Wastewater Treatment Plants 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 two-day modelling course will be held at the Vienna University of Technology, Austria and it is designed for persons with only little experience in activated sludge modelling. 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.

**Email:** [guenter.langergraber@boku.ac.at](mailto:guenter.langergraber@boku.ac.at)

**Website:**

[http://wwtp07.tuwien.ac.at/modelling\\_course.php](http://wwtp07.tuwien.ac.at/modelling_course.php)

## Techneau Workshop on Ceramic Membranes

24 September 2007, Nieuwegein, The Netherlands

Ceramic membranes offer new opportunities to face fouling challenges on membrane systems. The robust membranes, that are available in ranges from microfiltration to nanofiltration, allow high fluxes and rigorous cleaning methods. And although membrane prices are still high, a breakthrough of this technology for drinking and waste water treatment is expected to take place.

Within the European Techneau project (FP6) research on ceramic membranes is conducted by several collaborating European research institutes and universities. On 24 September 2007 a workshop is organised at Kiwa Water Research, Nieuwegein, in The Netherlands, for disseminating the knowledge from the project. The workshop will address the state-of-the-art on application of ceramic membranes and recent research results. Additional to the Techneau partners, the workshop is open for public, with support from IWA and the Specialist Group on Membrane Technology.

**Email:** [bas.heijman@kiwa.nl](mailto:bas.heijman@kiwa.nl)

**Website:** [www.techneau.eu](http://www.techneau.eu)

## 2008 IWA North American Regional Membrane Research Conference

10-13 August 2008, Amherst, Massachusetts, USA

This conference will showcase advances in membrane technologies for water and wastewater treatment as well as novel membrane materials and processes. The conference will provide a forum for discussion of these issues; all sessions will be 30-45 minute plenary sessions with time for questions and discussion. Opportunities will be provided for networking and group recreational activities.

Proposed themes

- Advances in Membrane Materials
- Wastewater Treatment and Reuse
- Desalination
- Drinking Water Treatment
- Gas Transfer Applications of Membranes
- Membrane Fouling Mechanisms and Control

**Email:** [membrane@ecs.umass.edu](mailto:membrane@ecs.umass.edu)

**Website:** [www.ecs.umass.edu/membrane](http://www.ecs.umass.edu/membrane)

## 11th International Conference on Urban Drainage

31 August - 5 September 2008, Edinburgh, UK

The conference proposes to inform urban drainage and associated professionals, designers, practitioners and researchers of the latest advances, concepts, design and best practice across all technical, environmental, social and economic aspects of urban drainage and related endeavours. The organisers invite you and welcome you to become involved, take part and advance your knowledge to state of the art.

The conference will also be supported by a series of 'tours' – both technical and cultural – and an 'accompanying persons programme'.

The winner of the Poul Harromoës Award will be announced at the Conference Dinner on Thursday 4 September 2008.

Proposed themes

- The effects of climate change on urban drainage systems
- Demographic effects
- Urban drainage in developing countries
- Multi-disciplinary and sustainable aspects of urban drainage systems
- Management at or near the source
- Catchment systems, holistic and integrated operation and management
- Hydroinformatics

**Email:** [enquiries@11icud.org](mailto:enquiries@11icud.org)

**Website:** <http://www.11icud.org>

## Young Water Professionals @ ASPIRE

28 October 2007, Perth, Australia

Following the success of the workshops organised during the World Water Congress 2006 (Beijing, China), the IWA Young Water Professional Programme has agreed with the organisers of the 2nd IWA Asia-Pacific Regional Group Conference & Exhibition (ASPIRE) to organise a day of activities/workshops exclusively for Young Water Professionals.

During the session of workshops, the young water professionals will have the opportunity to discuss with key figures of the water sector the challenges (from a social, economic and environmental point of view) that they will face as future leaders of the water sector.

The workshops will also provide an insight into the future of the water sector in the ASPIRE region from a variety of perspectives – encouraging dialogue between delegates and a panel of senior professionals and will determine the career development needs of young water professionals in the ASPIRE region.

The Young Water Professionals @ ASPIRE workshop is sponsored by the International Water Centre

**Website:**

[http://www.awa.asn.au/AM/Template.cfm?Section=Young\\_Water\\_Professionals\\_Stream](http://www.awa.asn.au/AM/Template.cfm?Section=Young_Water_Professionals_Stream)



## DEADLINES

**31 August 2007 for submission of full papers for 14th International Symposium on Health-related Water Microbiology (9-15 September 2007, Tokyo, Japan)**

**Contact:** [watermicro2007@env.t.u-tokyo.ac.jp](mailto:watermicro2007@env.t.u-tokyo.ac.jp)

**15 September 2007 for submission of revised full papers for Biofilms Technologies (8-10 January 2008, Singapore)**

**Contact:** [biofilm2008@orient-explorer.com](mailto:biofilm2008@orient-explorer.com)

**30 September 2007 for submission of abstracts for 5th International Symposium of Anaerobic Digestion of Solid Waste & Energy crops (4-8 May 2008, Hammamet, Tunisia)**

**Contact:** [moktar.hamdi@insat.mu.tn](mailto:moktar.hamdi@insat.mu.tn)

**30 June 2006 for early bird registration for Water Loss 2007 (23 - 26 September 2007, Bucharest, Romania)**

**Contact:** [secretariat@waterloss2007.com](mailto:secretariat@waterloss2007.com)

# News from IWA Publishing – [www.iwapublishing.com](http://www.iwapublishing.com)

We are delighted to bring you news of TWO NEW SERIES and FOUR NEW BOOKS from IWA Publishing:

## \* Biological Wastewater Treatment Series \*



The series Biological Wastewater Treatment is based on a highly acclaimed set of best selling textbooks. This international version is comprised by six textbooks giving a state-of-the-art presentation of the science and technology of biological wastewater treatment.

**Wastewater Characteristics, Treatment and Disposal** - Marcos

Von Sperling

**Basic Principles of Wastewater Treatment** - Marcos Von Sperling

**Waste Stabilisation Ponds** - Marcos Von Sperling

**Anaerobic Reactors** - Carlos Augustos de Lemos Chernicharo

**Activated Sludge and Aerobic Biofilm Reactors** - Marcos Von Sperling

Sludge Treatment and Disposal - Cleveron Vitorio Andreoli, Marcos von Sperling and Fernando Fernandes

## \* Water21 Market Briefing Series \*



This series, associated with Water21 magazine, will include reports on different aspects of the International water sector, each with either a technology or geographic focus.

**Municipal Water and Wastewater Services Reform in the Russian Federation** - Sergey Ivanov, Sergey Sivaev and Ella Shalukhina

**Reform of China's Urban Water Sector** - Derin Tao Fu, Miao Chang and Lijin Zhong

Wastewater Sludge - Ludovico Spinosa

## \* Risk Management for the Water Utility Sector \*



Authors: Simon Pollard

The provision of safe drinking water and the protection of public health and the environment through the treatment of wastewaters is increasingly informed by risk-based decision-making.

Implementation of revised WHO guidelines on drinking water, international developments in risk-based or risk-informed regulation and increasing customer expectations of water quality have further heightened the need for Utility Managers and Process Operators to be conversant in the principles of risk management.

For operators, risk management is now regarded as a key business function. Understanding risk and being able to implement risk management is critical to the provision of safe drinking water. As part of a move towards a more strategic, forward looking approach to utility management, the IWA is promoting a risk-based approach to water utility management, from catchment to tap, through the implementation of the Bonn Charter (2004).

ISBN: 1843391376 · June 2007 · 175 pages · Paperback

IWA Members Price: £ 60.00 / US\$ 120.00 / €90.00

## \* Water Reuse: An International Survey \*

### Common Practices and Current Needs in the World



Editors: Blanca Jimenez et al

The book describes the different reuse practices in the world classified per region and deals with technical issues related to reuse, such as: technology, public participation, water rights, and legislation.

Technical chapters offer a practical picture on the state of art technology and the current situation of global water reuse.

This title belongs to Scientific and Technical Report Series

ISBN: 1843390892 · April 2007 · 450 pages · Paperback

IWA Members Price: £56.25 / US\$112.50 / €84.38

## \* Cities of the Future \*

### Towards integrated sustainable water and landscape management



Editors: Vladimir Novotny, Paul Brown

With urban waters as a focal point, this book will explore the links between urban water quality and hydrology, and the broader concepts of green cities and smart growth. It also addresses legal and social barriers to urban ecological sustainability and proposes practical ways to overcome those barriers.

Cities of the Future features chapters containing 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. The book links North American and Worldwide experience and approaches.

ISBN: 1843391368 · May 2007 · 352 pages · hardback

IWA Members Price: £60.00 / US\$120.00 / €90.00

## \* Organic Waste Recycling \* Technology and Management



Author: Chongrak Polprasert

This book covers the principles and practices of technologies for the control of pollution originating from organic wastes (e.g. human feces and urine, wastewater, solid wastes, animal manure and agro-industrial wastes) and the recycling of these organic wastes into valuable products such as fertilizer, biofuels, algal and fish protein, and irrigated crops.

Each recycling technology is described with respect to: objectives; benefits and limitations; environmental requirements; design criteria of the process; use of the recycled products and public health aspects.

ISBN: 184339121X · May 2007 · 536 pages · Paperback

IWA Members Price: £44.25 / US\$88.50 / €66.38

## HOW TO ORDER

For more information on IWA Publishing products or to buy online visit [www.iwapublishing.com](http://www.iwapublishing.com), or contact one of our distributors:

### UK, Europe and Rest of World

Portland Customer Services, Commerce Way, Colchester CO2 8HP, UK

Tel: +44 (0)1206 796 351 Fax: +44 (0)1206 799 331

Email: [sales@portland-services.com](mailto:sales@portland-services.com)

**Postage and packing: please add £3.50/US\$5/€5 per title up to a maximum of £14/US\$20/€20**

**Prices, Extents and Publication Dates correct at time of print and remain subject to change by IWA Publishing without prior notice.**

### North America

BookMasters, Inc., P.O. Box 388, Ashland, OH 44805, USA.

Tel: +1 800 247-6553 (+1 419 281-1802 from Canada)

Fax: +1 419 281-6883 Email: [order@bookmasters.com](mailto:order@bookmasters.com)

International Water Association, Alliance House, 12 Caxton Street, London SW1H 0QS  
Tel: +44 (0)20 7654 5500 Fax: +44 (0)20 7654 5555 E-mail: [water@iwahq.org.uk](mailto:water@iwahq.org.uk) [www.iwahq.org](http://www.iwahq.org)

COMPANY LIMITED BY GUARANTEE. REGISTERED IN ENGLAND NO. 3597005. REGISTERED OFFICE AS ABOVE.  
REGISTERED CHARITY (ENGLAND) NO. 107690