



Member Newsletter

2 Japan Contribution to IWA activities



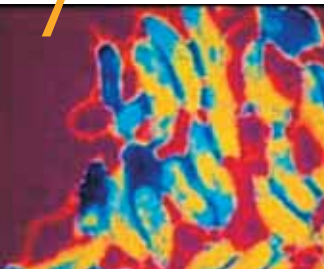
3 Global sanitation taskforce – Sanitation 21



6 60 second interview – Harro Bode



7 IWA Specialist Groups



10 Membership News

2007 IWA Membership Fees		
INDIVIDUAL MEMBERSHIP RATES		
Membership Type	High Income Countries	
Individual (1 yr - 2007)	€55	\$104
Individual (3 yr - 2007)	€165	\$310
Student/Retired (1 yr - 2007)	€25	\$48
Student/Retired (3 yr - 2007)	€75	\$141
Student/Retired (3 yr - 2007)	€75	\$141
CORPORATE MEMBERSHIP RATES		
Membership Type	High Income Countries	
Small (1 yr - 2007)	€200	\$388
Small (3 yr - 2007)	€610	\$1,208
Small (3 yr - 2007-2009)	€790	\$1,670

INTRODUCTION FROM EXECUTIVE DIRECTOR, PAUL REITER

As we approach the end of another year, I am struck by two thoughts. First are the continuing and sometimes dizzying advances in water science and technology and their day to day contributions to the protection of public health and the health of the environment. Monotonic increase in health and environment standards in all of the developed countries are being met by better and better technologies. For example, just stop and think for a moment about the profound effects membrane technology has had in the last ten years and will continue to have in the next. Leaders in biological nutrient removal are driving the practice to not only nearly complete nitrogen and phosphate removal, but adding phosphate recovery to complete the process. All of these accomplishments will be supercharged by the increasing use of bio and nanotechnology tools that will either augment or eclipse existing technologies.

The second thought is about the other at least 70% of the planet (if not more) whose population, because of a basic lack of income, poor governance, corruption and host of other challenges, struggle to cope on a daily basis with poor to non-existent water supplies, wholly inadequate sanitation and virtually



no environmental protection.

When I put these two thoughts together and think of the powerful intellectual and humanitarian resource to be found within the IWA membership and network, it turns the dissonance that we all feel about the great gap in the well being of our world into a feeling of hope and possibility. The fact that we are close to having the ability to link needs with help through an IWA Water Corp is an important step. You can learn more about this and

IWA's Global Development Solutions program under the programmes section of our website.

I hope that you share my feeling of a sense of urgency in making a contribution to the incredible challenges faced around the globe related to the use and protection of water – challenges that will only be amplified by global warming. Let's make a personal commitment to this mission in 2007 and be grateful for the great goodwill that exists within the IWA family.



Focus on Japan

With the election of Professor Shinichiro Ohgaki of the University of Tokyo as IWA Vice-President at the 5th IWA Biennial World Water Congress, the IWA Japan National Committee has recently undergone some changes. Professor Yoshimasa Watanabe is now the President and official representative to sit on the Governing Member assembly along with Mr Masakazu Akagawa.

At the end of November 2006, the 7th Symposium on Water Supply Technology took place in Yokohama. IWA would like to thank Dr Masahiro Fujiwara and the organising committee for inviting IWA to co-sponsor the symposium. This was the first time IWA were co-sponsors and it signifies an important step in the continuing process of Japan sharing its deep experience in water-science technology through the IWA network. We report about the symposium in this issue of the newsletter on a separate article kindly provided by the organisers.

Working together, IWA and Japan have engaged in a number of joint activities over the past few years, including the Leading Edge Technology conference in Sapporo, which was a huge success, several years of active participation in World Water Monitoring Day, joint work on the Bonn Charter (including a Japanese translation) and the successful chemical industries conference in Tsukuba and of course a very large participation of Japan in IWA's successful World Water Congress in Beijing 2006.

Young Water Professional Programme



The YWP programme Team is glad to announce that Dr. Michael V. Storey has accepted the position of Chair of the Young Water Professionals Programme for the next two years. Michael, after having obtained a BSc (Hons) in Microbiology and PhD in Environmental Engineering, is currently working as a Project Manager at Sydney Water Corporation and researcher with the CRC for Water Quality and Treatment. Michael's research interests lie in microbial ecology and public health microbiology.



From left to right: Shinichiro Ohgaki, Shuichi Muramoto, Katsunobu Takenaka during the last Governing Board meeting in Beijing

This will be followed in 2007, with the Microbiology Conference "Water Micro" which will be hosted by Professor Ohgaki.

Through these and other events, IWA members from around the world have had a chance to visit Japan and have come to know its great diversity and complexity, including the sophisticated approaches that it has applied to the management of water and the technologies associated with it.

Our members have also come to know and value the quality of our leaders that have served over the years in both IWA and its predecessors. In recent years these have included the esteemed Professor Norihito Tambo who served as IWA president from 2001 to 2003, Professor Saburo Matsui who served as a IWA Executive Committee member from 2004 to 2006, and looking forward- Professor Ohgaki, Senior Vice president and who will serve on the Executive Committee from 2006 to 2008.

These individuals have been supported in turn by leading figures from academia, the Utilities and industry, including Professor Yoshimasa Watanabe, Professor Yasumoto Magara, Dr Masahiro Fujiwara, Dr. Hiromichi Sakamoto, Mr Masakazu Akagawa and Mr Katsunobu Takenaka.

IWA benefits from the contribution of our Japanese members and members from around the world. The next few years are going to be



Mr Katsunobu Takenaka

exciting. We have now launched IWA Utilities and we are keen to encourage involvement from Japan in growing this initiative. We have also launched 4 new specialist groups on Climate Change, Governance and Regulation, Water Security and Urban Sustainability.

We will alternate the Leading Edge Technology conference between Asia and Europe, beginning in 2007 in Singapore. We are also exploring interest in bio and nanotechnology initiatives and are carrying out some of the work we began in Beijing on urban sustainability and cities of the future.

IWA would also like to extend a very special thanks from all of us at IWA to Mr. Takenaka for his quiet and effective leadership within JWWA, IWA and the region for more than two decades.

His wisdom, tenacity and kind manner have been greatly appreciated.

Global sanitation taskforce – Sanitation 21

Darren Saywell, Barbara Evans

Preamble

Conventional approaches to sanitation planning and design seem to fail with depressing regularity. In developing utility situations where coverage is low, the norms and approaches that are being applied in general seem to result in too frequent failures which either sees the perpetuation of low access to services, or short term failures in operation and maintenance.

Current technical planning and design practices, based as they are on logical normative technical planning approaches, seem to be failing because:

- the objectives upon which decisions are based are distorted by special interests, or by a poor understanding of the real needs of the population,
- they result in plans which do not respond to the rapidly changing urban context and diverse conditions which pertain in modern urban spaces;
- they fail to make a realistic assessment of short term inertia which impedes capital investment; and
- They result in systems which place an unrealistic management burden on all levels of the city.

Recent work by a task force convened by IWA (referred to as 'Sanitation 21') argues that technical planners and designers have to get smarter at planning systems which respond to the needs of the modern city. This requires a sea-change in the way technical decisions are taken, so that they can respond better to the human and political context in which they are made. Yet, paradoxically, what the task force is proposing is not rocket science; in fact it's not very new at all. It draws on well-established principles of good planning and design practice from within the technical world and also from much thinking in the development world. In short, the message is 'let's do planning and design better.'

Scale of problem

The scale of the problem in low and middle income countries is enormous. This is because urban populations are growing, urban areas are becoming increasingly informal and coverage (our starting point) is extremely low, with the main challenges focused in the poorest countries. The situation is complicated by the following factors:

- **Urbanisation:** During the 20th century, the world's urban population increased more than tenfold. Today, nearly half the world's population lives in urban centres, compared to less than 15 percent in 1900.
- **Growth of slums:** Within cities themselves exclusion and marginalization of the poorest appears not only to be deepening (the gaps



Barbara Evans speaking at the Sanitation 21 Workshop, Beijing 2006

between rich and poor widening) but also spreading, so that an increasing percentage of the urban population is living "outside" the systems of formal service provision.

- **Low Coverage:** In 2002 more than a quarter of the urban population in developing countries was recorded as not having access to improved sanitation and fewer than 40% had a house connection. Moreover, there is growing evidence of a strong correlation between low coverage and poverty (for instance, 4 billion people (two thirds of humanity) living on approximately US\$1000 capita/pa, have only 50% access to sanitation)

Areas of controversy ...

In recent years the immense complexity of this discussion has occasionally been stereotyped into a conflict between those who promote 'conventional' networked sewerage and waste water treatment and those who promote 'closed loop' systems which in various ways seek to reuse the nutrients in human wastes as close to their origin as possible. But this stereotyping does a disservice to the main protagonists in the discussion who understand that urban sanitation systems are immensely complex. Just how important is the environment and how do decision makers value its protection when assessing a range of sanitation options? When, if ever, is it justified to expend energy created by the burning of fossil fuels on cleaning wastewater? Is it fair to charge very poor people for the costs of wastewater treatment from which they experience no immediate private benefit? If this is not fair, how can utilities operate and who should pay them for the costs of running a system? How much can utilities be expected to promote environmentally optimum solutions if this results in no revenue for them? Can people who have no previous experience of recycling

human wastes be persuaded to adopt such practices and who pays for the promotion of the approach?

These questions are just a few of those which should be addressed by system planners when initiating or managing urban sanitation systems. Often they are not because the decision making process is dominated by one particular type of decision maker – perhaps an engineer with highly technical knowledge, or perhaps someone from a development agency with a strong social agenda or a strong home-industry export agenda, or again it may be the environment agency or a donor with a strong commitment to environmental protection. But in all these cases opportunities for exploring the whole range of potential solutions may be lost and the agenda may be 'hijacked' by one particular interest group.

Why do well designed sanitation systems fail?

One conclusion has to be that these systems are either inherently inappropriate to the cities they are meant to serve, badly planned, badly implemented, or poorly managed. To help understand what might be going wrong the task force looked at three significant challenges relating to urban sanitation:

- The gap which exists between the interests of households and the incentives facing utilities/ cities. Put crudely, household investment in sanitation is driven to a large extent by the impact that it may have on the household level, which is in and around the home. By contrast, service providers, often utilities, may have a focus on water management rather than sanitation provision, resulting in a particular focus on networked solutions. The resulting gap is significant – as it reflects a failure to connect



established mature utilities this dynamism comes as a surprise. Typically master plans propose an idealised end-point (almost invariably sewerage and centralised wastewater treatment) and a sequence of development steps to reach that end point, without taking into account the future growth and changing aspirations of the city. The reality is that everyone, from the household to the city level, may change their interests over time. Moreover, there is rarely a 'greenfield' sanitation site to start with - in most areas people have invested in some sort of sanitation even if it is only of the most basic kind.

In short the framework that emerged from the task force sought to explore the reasons for poor decision making.

and contexts which impact on behaviour in each domain. In addition to internal objectives mentioned above, for actors at each level there are external factors which tend to influence decision making. Many of these create incentives for actors to make particular decisions. For example poverty, tenure security or insecurity and the relationship with service providers will all influence how households act even if their objectives are clear. Further 'downstream' external policy drivers become more important so that wards may be influenced by city politics and cities by national policies, financial structures and economic priorities. Interestingly it is probably only at the 'beyond city' domain that international commitments to targets such as the Millennium Development Goals (MDGs) become relevant.

target households to city-wide systems. The gap is critical; it prevents households from realising the health benefits they desire, and it prevents cities from realising the environmental benefits they have planned. It results in enormous wasted investment and may even result in a worsening of both the health and environmental conditions in a city.

- The lack of capacity and sense of inertia which prevails in many utilities/ cities. Since household demand for sanitation is often suppressed, there may be little upward pressure on city governments and utilities to ensure that sanitation investments are made and made effectively. The result, in the absence of a clear budget line in a competent agency, is inaction and worse, a resistance to action, since everyone's responsibility becomes no-one's responsibility.
- The dynamics of urban development. Over time the urban system is dynamic. For many technicians used to working with well

A draft analytical framework

Drawing on the argument developed above, the task force sought to develop an approach which could improve the quality at entry or planning of urban sanitation systems. It is simple, and based on principles of good planning. In summary, this approach:

- Promotes an analysis of the objectives of a sanitation system across all domains of the city, including the household (other domains include the neighbourhood, city and beyond the city). To help understand how interests and incentives play out across the city, we have used a simplified version of Figure 1 where the city is divided into five domains. In reality the domains of a city vary enormously with social and political norms and structures, as do the drivers or motivating factors for sanitation investment within each domain, so this approach can be applied flexibly to the situation that the reader is actually considering.
- Promotes an analysis of the external drivers

- Analyses technical options in terms which relate elements of the system to these domains. Technical choices made for each component of a system are highly interdependent (no engineer would suggest the need for a cartage approach if water closets are in use). But if technical assumptions are fixed and not challenged some of the objectives of the sanitation system discussed earlier may not be achievable. The challenge for the planners, designers and managers of the system is, while understanding all the drivers and options, to balance the objectives and identify the optimal solution for a given situation at a given time.
- Encourages a realistic assessment of the management requirements in each domain. Having assessed whether the objectives are met, systems can also be assessed in terms of their management requirements. Here the process of analysis which divides the city into domains assists because it enables a disaggregated assessment of whether sufficient skills and finances exist in each domain to effectively operate the system. Where management requirements do not match with existing capacity, adjustments to the design are possible which either shift responsibilities up or down the system or alter the management requirements at a given level. Thus for example if the costs of pumping are excessively high throughout the network this may point to the need to consider shallow sewers with significantly lower pumping costs. This in turn may shift some management responsibilities upstream to neighborhoods and households which in turn can be assessed against available capacity. A key point here is to anticipate potential cuts, particularly in funding and manpower, which may possibly arise in the future and consider how vulnerable a system may be to such, often political, decisions.
- Prompts the planner/ designer to ask, will it work? Are the management requirements matched by management capacity

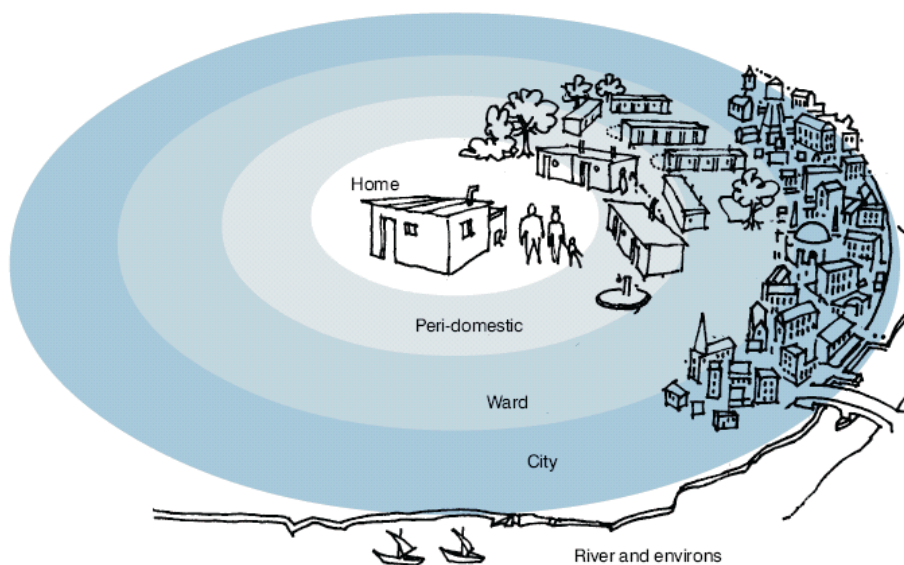


Figure 1: The household perspective on sanitation – including an indication of different 'domains'

throughout the system? Is what we are proposing fit for the purpose?

Summing up

This framework of course does not really capture the enormous complexity of the challenge of urban sanitation. In reality urban sanitation planners and designers need to take into account a wide range of additional factors. What it does do however is serve as a useful preliminary tool to outline the options and to open a debate about the real objectives of a given sanitation investment; to raise the right questions systematically. It enables stakeholders to evaluate their interests alongside some of the technical drivers which might otherwise be used in isolation to develop technically 'orthodox' solutions.

So our framework is really an embryonic approach which seeks to enhance conventional urban sanitation planning. It draws on huge cannon of existing literature both from the "development" world and the "technical" world. It suggests that a sanitation system which works will probably comprise a range of elements and a range of technologies performing various functions in different quarters and domains of the city and selected with both institutional and technical considerations in mind. While some people may make use of reticulated sewerage



Improved sanitation

others may make use of a well-functioning on-site management system, and, in an ideal world, they will enjoy the same level of service within the household. Thus the framework can be used not only to help analyse a citywide system but also elements within that system, and can also be used to identify a development path over time.

In time, what is really needed is a new

paradigm for urban sanitation planning which links the human challenge of excreta management with the organisational challenges of modern city life. What we argue here is that this paradigm needs to move beyond the normative approach presented in conventional texts towards a more realistic assessment of how proposed technical solutions meet the objectives in each domain of the city. In this way, well-designed systems can be tailored so that they really link the household with its local interests in cleanliness and convenience to the city and the wider world with its policy imperatives to protect the environment and deliver national development goals.

A full text version of the draft analytical framework (Sanitation 21: Simple Approaches to Complex Sanitation) is available via the IWA website listed below, or from Darren Saywell at the IWA London office

(Darren.saywell@iwahq.org.uk)

http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=639578

Symposium on Water Supply Technology in Yokohama

The 7th International Symposium on Water Supply Technology under the theme of "New Water Supply Technologies and Development of Water Utility Management" was held in Yokohama Japan on 22-24 November 2006. The Symposium, supported by IWA, was organized by Japan Water Research Center and Yokohama Waterworks Bureau.

Over 950 attendees from 31 countries participated and the Symposium was concluded with great success.

The program included:

- Keynote speech by Prof. Yasumoto Magara, Hokkaido Univ.
- Special lecture by Dr. David Garman, IWA president
- Presentations by 6 invited speakers:
 - Prof. Rolf Gimbel, IWW Univ. of Duisburg-Essen, Germany
 - Prof. James K Edzwald, Univ. of Massachusetts, USA
 - Prof. Eun Namkung, Myong Ji Univ., Korea
 - Mr. Tony Rachwal, Thames Water, UK
 - Mr. Zhendong Li, China Urban Water Association
 - Mr. Terrence Thompson, World Health Organization
- Three technical sessions by 27 presenters under the theme of "Advanced Water Treatment Technology", "Advanced



General Discussion Panel for the Symposium on Water Supply Technology, Yokohama

Technologies and Appropriate Management for Water Distribution" and "Development of Water Utility Management"

- Poster session by 30 presenters
- General panel discussion with 11 water experts facilitated by Prof. Shinichiro Ohgaki, IWA Vice President

Important issues to be discussed in the following symposiums were summarized as concluding remarks:

1. Environmental protection such as water resources catchments, collaboration with related

authorities

2. Water conflicts among users, including rural and urban, etc.

3. Suitable technology for regions to be introduced

4. New technologies / finance requirements

5. Customers viewpoints, their behaviors, their wisdoms, including sociologies

6. Human resources development

The 8th Symposium will convene in Kobe Japan in 2009.

60 second interview – Harro Bode

Prof Dr.-Ing Harro Bode
Chief Executive Officer
Ruhrverband

Harro Bode is the CEO of Ruhrverband (Ruhr River Association), which is responsible for the entire water quality and quantity management in the catchment of the River Ruhr (8 reservoirs, 60 municipalities, 80 sewage treatment plants, 530 stormwater storage and treatment facilities and 1200 employees).

He is a civil engineer by education and was awarded the very prestigious "Karl-Imhoff-Price" in 1986 for his PhD thesis (given by the German Water Association (DWA)). In 1999, he was appointed as "Honorary Professor" by the University of Hannover.

Harro Bode joined IWA when it was still IAWPRC in 1984 and since then has served in a variety of different functions. Today he is a member of the IWA Executive Committee and Governing Board; chairman of the IWA Specialist Group on "Design, Operation and Costs of Large Wastewater Treatment Plants" and chairs the German IWA National Committee in addition to many other functions within the German water sector.

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

Water management from the point of view of an engineer has changed to more multi- and interdisciplinary work than in former times. Although involving natural scientists, economists, lawyers etc. has a long tradition in engineers' work, there is a more diversified decision making process now with the need for transparency to all parties participating. This results in a good portion of formalistic work for organization, coordination, documentation etc., and sometimes in "red tape". On the other hand we find good progress in learning methods, mechanisms, impacts during recent decades so our work may be more goal-oriented and efficient than in former times.

A more technical change to be mentioned is the availability of membrane technology. This innovation has led to new developments in the sector.

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

Water management is an essential element of infrastructure, environmental protection and sustainable development on a local, regional and global scale. Future challenges depend very much on the specific scale one adopts. In

Germany, a land with an abundance of water, trace pollutants and compounds created by society will be in the focus of at least the next 10 years. For all problems dealing with water, reliable solutions must be developed, and politicians and decision-making parties must be convinced of these measures. A key aspect for this process is the economy in relation to the targets aspired. We have to make more efforts to communicate the necessity of this work, the efficiency of the measures proposed and the reliability of our expertise.

If one thinks about the question more in the light of the global scale, the answer is different, of course. Water shortages, climate change, problems of hygiene and heavy pollution are the priorities. Solutions are mostly of local or regional nature. Normally there are no global 'recipes'.

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

Although it is difficult to nominate a single person according to my opinion one of the leading experts in the field of water management is Prof. Helmut Kroiss from Vienna Technical University. He combines expertise as an engineer and natural scientist, experiences in evaluation of deficits and feasibility and a balanced strategic perspective.

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

The "Ruhrgütebericht" (Ruhr quality report) is an annual report initiated in 1973 and issued by RUHRVERBAND and the water works in the catchment area of the River Ruhr. This report highlights the efforts and success in water management for an entire river basin of nearly 5,000 km². It contains not only yearly comparisons of the local development but also features special chapters of broad interest to the world of water. Additionally RUHRVERBAND reports annually on water quantity management ("Ruhrwassermengenbericht") with valuable information on current meteorological, hydrological and operational data for the system of reservoirs in the catchment. These reports are available in the German language only. The expertise of RUHRVERBAND staff can be deployed for water management solutions for outside the RUHRVERBAND area. Experiences from our work can be extrapolated to other regions on a larger scale than has been the case to date.

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

I personally wish IWA luck and success in gaining more members worldwide. This applies to individual

as well as to corporate members (with a main focus on utilities). By the wealth of conferences, workshops and seminars IWA is offering, it should be possible to draw a broader and even more intense attention to IWA events than at present. One should consider the advantage that English is on its way to becoming a globally recognized language in the field of water engineering.

Moreover, I have the following observation. IWA's bottom-up approach is inherited from the wastewater organisation IAWQ. The top-down-culture of IWSA (which is more commonplace in the world of drinking water) should also be offered to those who favour this approach. Judging from observation, this is the way many municipal utilities would like to use a global water association. Overall, I view IWA to be in a good way: it seems that the efficiency of the headquarters has increased significantly over the last year. This is important and necessary so that IWA can keep track of all its activities and enlarge its membership by constantly using its connections, databases and networks.

Contact points

Prof Dr.-Ing Harro Bode

Chief Executive Officer

Ruhrverband

Kronprinzelnstrasse 37

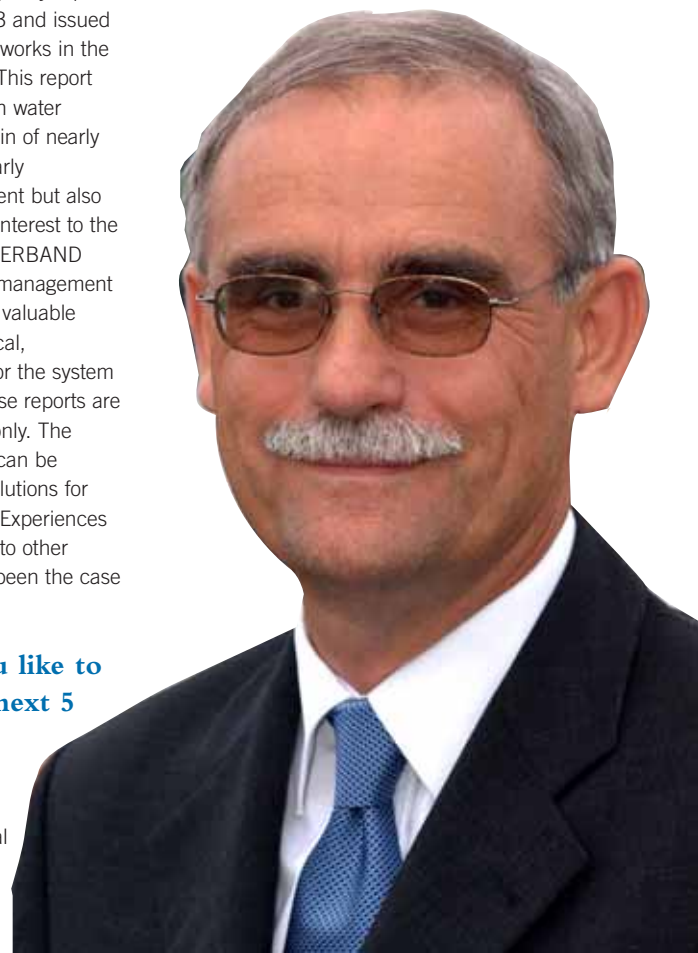
45128 Essen

Germany

Tel: +49 (201) 178 1020

Fax: +49 (201) 178 1025

E-mail: bode@ruhrverband.de



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 and their activities view the IWA website http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633829 . To take advantage of this networking opportunity, and

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

This issue of the newsletter features the activities of four groups active in the research and practice of:

- Efficient Operation and Management of Urban Water Systems
- Health-Related Water Microbiology
- Institutional Governance and Regulation
- Statistics and Economics

Efficient Operation and Management



The EOM SG is an active cluster of water professionals from different backgrounds (utilities, academia, consultancy firms, etc.). The topics dealt within the group are those related to the management and operation of urban water systems with a wide arrange of approaches always with the perspective of efficiency being taken into account.

The group meets at least once a year in order to coordinate its activities and to provide all members with the details of how the different projects are evolving. The work is structured around taskforces (currently there are 6 of them) and the usual deliverables include international conferences, workshops, manuals and publications and the establishment of thematic and cooperation networks.

Currently active taskforces in the EOM SG are:

- Water loss taskforce
- Efficient water management
- International demand management framework
- Operation and maintenance network
- Benchmarking
- Performance indicators for water supply services

Events scheduled in 2007 by the EOM SG include:

- Efficient 2007 (20-23 May 2007, Jeju Island – Korea): 4th in the successful Efficient series, the 2007 edition will be the first one to be held in Asia. The event has already become an international reference for all topics related to an efficient use and management of water. More information can be found at www.efficient2007.com
- Water loss 2007 (23-26 September, 2007, Bucharest – Romania): Third event in the IWA specialist conferences on water loss reduction, which will focus on best practices in water loss assessment, management, leakage reduction and control and improvement of customer metering. www.waterloss2007.com

Further and up-to-date information can be found at the EOM SG website: www.iwaom.org. All IWA members are invited to join the group and assist to the next SG meeting which will be held during Efficient 2007 in Korea.

For more information on the group please view the IWA website at: http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633856 or contact the Chair: Mr. Francisco Cubillo fcubillo@cyii.es and or the Secretary Dr. Enrique Cabrera qcabrera@gmf.upv.es

Health-Related Water Microbiology

The Health Related Water Microbiology specialist group was the first specialist group endorsed by the IWA, and has been in existence

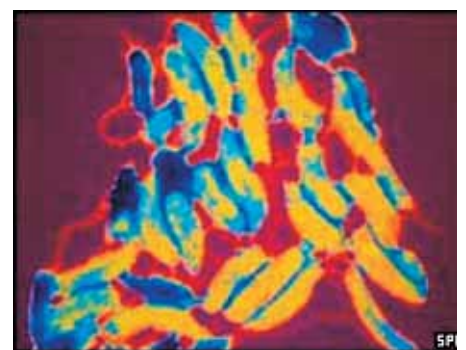


for over 25 years. The HRWM currently represents 73 nations with 800 members. The group's primary focus is on water microbiology and related impact to human health, with set goals being to foster international cooperation, encourage free exchange of information and publication, and to contribute to growth of younger scientists in the field; and continually search for linkages with other IWA subgroups.

The 2006 workshop on Health-Related Water Microbiology was held successfully during the 5th International Water Congress in Beijing, September 10-14, 2006. During the workshop, an overview of disease outbreaks and the potential for disease transmission associated with global tourism (issues related to outbreaks on cruise ships) and major global events (i.e. 2008 Olympics) were presented.

In addition, the potential of various monitoring and assessment frameworks, tools and techniques for improving our understanding of the water pollution risks and creating safer environments for special events and venues such as remote sensing and improvements in water treatments were discussed. The recommendations from the symposium were that the HRWM group create a advisory committee to interact with the global tourism industry to help to respond to the needs of the consumer in regard to health risks and protection (particularly in regard to managing the sources of the contamination, the fecal wastes); and that data base be created which begins to gather, assess and finally learn to manage, recreational-based diseases using the most advanced tools and sensors available.

Vibrium cholerae, the cholera-causing bacteria



We're currently working on the organization of "WaterMicro 2007", the 14th International Symposium on Health-Related Water Microbiology, to be held at the University of Tokyo, Japan, September 9-15, 2007. The Health Related Water Microbiology group will be sponsoring approximately 20 people to attend who would otherwise be unable to. This group will be composed of both scientists from underdeveloped countries and students from all countries. Scholarship applications for members and students from developing countries to attend this meeting will be released in January,



2007. Please visit <http://watermicro2007.jp> for more details. On the last day of this Symposium we will hold a joint workshop with WHO entitled "Testing the waters: Realising the potential of today's technologies to guide better water management for health". At this workshop we will examine what is required in a drinking water system and investigate the different options which may be required by different countries with differing needs, resources and requirements. Each section will be led by senior researchers in collaboration with a junior scientist.

The group with the World Health Organization also sponsors the Journal of Water and Health published by IWA Publishing. The journal began publication in 2003, is published quarterly and covers topics such as water quality, water treatment and health epidemiological studies, monitoring and risk assessment topics; has been reviewed as producing excellent series of papers useful to public health and the water industry. JWH is currently listed in the Pub Med (Medline) literature base by the U.S. Library of Medicine. Although not listed by the Institute of Scientific Information it has an impact factor among the top five in the water resources area.

Visit the HRWM web site www.iwa-microbiology.org for the latest news on outbreaks around the globe including cholera, polio, Legionnaires, and norovirus; table of contents associated with the Journal of Water and Health and information on upcoming events. Contact the HRWM group at Email hrrm@msu.edu with any news or ideas.

Institutional Governance and Regulation

The SG on Institutional Governance came into being on 1 March 2006, and its first task, working with IWA Utilities, was to prepare a reference paper on 'Sustainable Cost Recovery' which can be seen on the IWA website. It is



proposed that producing such reference papers, which can be used by IWA members to provide an international view on important national debates, will be one of the core activities of the Group. A reference paper on public participation is in preparation, and one on including environmental costs in water service charges is being considered.

The Group held its first meeting at the Congress in Beijing in September, when the Group's Management Committee, consisting of Michael Rouse (UK) chair, Prof McKay (Australia) Secretary, Eija Vinnari (Finland) web site manager and Nancy Barnes (USA) newsletter editor, was formed. Those present discussed the Groups Mission Statement and Constitution. Following the meeting, these were developed and put on the website. The Mission Statement reads as follows:

'The Mission of the Institutional Governance and Regulation Specialist Group is to promote discussion and learning of water governance regimes at the institutional level, and to provide a forum for all those involved, or interested, in economic, environmental, and drinking water quality regulation, to discuss and learn from international experience in implementing regulations.'

Following the meeting, there was a discussion between Michael Rouse and Jamie Bartram (WHO) and Sven- Erik Skogsfors as the first step in the Group forming a close working link with the WHO International Network of Drinking Water Regulators. It is planned to hold a seminar or workshop to take place during World Water Week in Stockholm in August 2006.

The Group is delighted that its activities and those of the Standards and Monitoring Group have been merged creating a combined group of 903 members. There is a natural fit between the institutional governance and regulation aspects and the associated standards and monitoring. The new combined group has the opportunity of taking part in the Bonn Charter Principles Discussion Forum which will be moderated by Michael Rouse and will run on the IWA website throughout December.

For further information about this group can be found on the groups webpage at: http://www.iwahq.org/templates/ld_templates/layout_633184.aspx?ObjectId=633852 or contact the Chair Michael Rouse michaelrouse@yahoo.co.uk and/or the Secretary Jennifer McKay Jennifer.McKay@unisa.edu.au.

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 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 focusing both



fundamental and practical issues about current pricing and funding practices to be considered by an 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

The Group is going to organise in 2008 a second conference in Greece on International Finance and Charging Regimes in the water sector. Concerning Process Benchmarking a new draft plan will be prepared and coordinated in the Joint Task Force that is instituted by our Group and the SG on Operations and Maintenance.

The Group is also going to update and restructure the leaflet on International Statistics for Water Services presented at 2006 Beijing Congress, which will cover charging levels and water service key figures. This leaflet should be hopefully edited by IWA Publishing and presented at the next World Congress in Vienna 2008.

In the beginning of 2007 an article about pricing policies will be prepared.

Browsing the IWA website - <http://www.iwahq.org.uk/template.cfm?name=sg37> - where and updated view of the Group's activities, published documents and newsletter can be found, is recommended for more information.

The Main Contacts for the group are the Chair Dr. Renato Parena renato.parena@smatorino.it; Vice-Chair Carlos Sanclemente: escsanclem@agbar.es and the secretary Dr. Ed Smeets ed.smeets@twm.nl

Upcoming Events

More than 30 IWA conferences will be held in 2007. A small sample of these can be found below:

Nutrient Removal 2007: State of the Art

4-7 March 2007, Baltimore, USA

This conference will bring together environmental professionals from around the world to discuss and debate the current state of the art for nutrient removal and the parameters that influence technology boundaries. It will provide valuable information for people seeking to understand the full picture of the latest developments and practical experiences on this important topic.

Advanced Sanitation

12 - 13 March 2007, Aachen, Germany

The demand for advanced and sustainable sanitation systems will increase due to the predicted rapid growth in the world's population and an increasing water scarcity in many regions of the world, among other reasons. Thus new technologies and systems have to be developed.

The Advanced Sanitation conference will serve as a perfect venue to exchange the most advanced developments in the field of sanitation.

Design, Operation & Economics of Large Wastewater Treatment Plants

9-13 September 2007, Vienna, Austria

Large waste water treatment plants are the most important contributors to water quality improvement worldwide. With increasing population in congested urban areas, these plants have become indispensable to protect surface and ground water for drinking water supply. This conference aims to promote the exchange of experience and knowledge in waste water treatment between designers, managers, operators and scientists on an international level.

Water in Protected Areas

25-27 April 2007, Dubrovnik, Croatia

The conference aims to present the most important issues, challenges and strategies, discuss threats as well as potential of protected areas for conservation and rational use of precious resources, safeguarding of ecosystems and cultural

heritage and expose the problem to public.

IWA Conference on Water Management & Technologies Applications for Developing Countries 2007

14-16 May 2007, Kuala Lumpur, Malaysia

This conference is an initiative to provide a fresh perspective on the latest development of water management and technology, aligned to integrated management of the water resources. It also aims to discuss related methodologies, directions and other important scientific issues. Special emphasis will be given to the progress in the tropical regions due to the fact that most of the recently reported findings and development in the area of water management and technology are conducted or targeted towards countries with temperate climate.

5th IWA Specialised Conference on Assessment & Control of Micropollutants/ Hazardous Substances in Water

17-20 June 2007, Frankfurt/Main, Germany

The Micropollutants and Ecotoxicology conference 2007 will encompass the currently emerging research in the fields of environmental chemistry, urban water management, intensive potable reuse technologies, ecotoxicology, human toxicology as well as regulations, measures to minimize hazards for biota and humans and the emerging issue of nanotechnology related industrial applications and environmental implications.

Water Loss 2007

23 - 26 September 2007, Bucharest, Romania

Water Loss 2007 is intended to present and discuss the latest developments, strategies, techniques and applications of international best

practices in water loss assessment, management, leakage reduction and control and improvement of customer metering.

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

25 - 28 June 2007, Lyon, France

Novatech 2007 will deal with sustainable and alternative solutions for management of wet-weather flows (storm water and CSOs) in urban and suburban areas. It will also provide a platform for international researchers and national practitioners to meet and discuss about common interests and problems dealing with the management of urban water.

Particle Separation 2007 - from Particle Characterisation to Separation Processes

9-12 July 2007, Toulouse, France

This conference gives all the experts in this field a chance to exchange their latest results. It is a unique opportunity for students and young professionals to get an overall idea of what is going on and to meet the most eminent specialists.

11th IWA Specialist Conference on Anaerobic Digestion

23 - 27 September 2007, Brisbane, Australia

The theme of the conference is: Bio-energy for our future - Renewable Energy from Waste. Although a number of other topics will be discussed, the 11th Anaerobic Digestion will have a strong focus on the various ways to recover the energy from waste materials, either as methane, hydrogen or directly as current in Microbial Fuel Cells. The conference is expecting a strong participation from our colleagues worldwide, particularly also from Asia and South America where this technology is gaining a lot of interest in recent years.

You can find more information about these and other conferences on our website.

IWA Utilities – Benchmarking

IWA and the Water Services Association of Australia (WSAA) have formed a partnership to undertake a series of benchmarking projects and are inviting water utilities to participate in the 2007 IWA/WSAA Customer Service Process Benchmarking Project. This will cover the following activities: call centre, meter reading,

billing and accounting, field services, remittance processing, credit and collection, and front office.

For more information see the IWA Utilities section of the IWA website. Please indicate your interest in this project as soon as possible by contacting the IWA London office.

Membership news

2006 has been a very successful year for IWA in terms of the growth of the IWA membership network. We now have a total of 403 corporate members and 4901 individual members!

We'd like to take this opportunity to thank you all for your support and involvement in IWA during 2006. We hope that you have found your membership valuable and we look forward to continued collaboration with you in the coming year!

It's time to renew!

It is now time to renew your membership for 2007 and you should by now have received your membership renewal invoice. Individual

members have the option to either pay the renewal invoice as instructed or you can renew your membership online at: www.iwahq.org.

IWA would like to encourage our members to renew before the New Year, in order to avoid any delay in receiving their member benefits!

We are constantly exploring ways to improve communications with our members and the benefits that you receive as part of your membership package. IWA will be introducing the following changes to the current member benefits packages:

- As from January 2007, institutional members (i.e. universities etc) will now be referred to as Medium Sized corporates; this

will not affect their membership package and benefits.

- IWA has revised the membership multi-year options so that it is now possible to subscribe to IWA membership for either 1 year or 3 years at the current years subscription rate.

If you have any questions about renewing your membership please contact us at: iwamembership@portland-services.com quoting your membership number in the subject line of the email.

We look forward to continued collaboration with you in 2007!

2007 IWA Membership Fees

INDIVIDUAL MEMBERSHIP RATES

Membership Type	High Income Countries				Low Income Countries			
	£	\$	€	JPY	£	\$	€	CNY
Individual (1yr - 2007)	£55	\$104	€82	JPY 12,257	£25	\$48	€38	CNY 387
Individual (3yr - 2007-2009)	£165	\$310	€248	JPY 36,857	£75	\$141	€113	CNY 1,163
Student/Retired (1yr - 2007)	£25	\$48	€38	JPY 5,586	£15	\$28	€ 23	CNY 233
Student/Retired (3yr - 2007-2009)	£75	\$141	€113	JPY 16,755	£45	\$84	€ 68	CNY 697

CORPORATE MEMBERSHIP RATES

Membership Type	High Income Countries				Low Income Countries			
	£	\$	€	JPY	£	\$	€	CNY
Small (1yr - 2007)	£300	\$588	€459	JPY 67,290	£150	\$294	€230	CNY 2,330
Small (3yr - 2007-2009)	£810	\$1,588	€1,239	JPY 181,683	£405	\$794	€620	CNY 6,290
Medium (1yr - 2007)	£750	\$1,470	€1,148	JPY 168,225	£375	\$735	€574	CNY 5,824
Medium (3yr - 2007-2009)	£2,025	\$3,969	€3,098	JPY 454,208	£1,013	\$1,985	€1,549	CNY 15,724
Large (1yr - 2007)	£1,700	\$3,332	€2,601	JPY 381,310	£850	\$1,666	€1,301	CNY 13,201
Large (3yr - 2007-2009)	£4,590	\$8,996	€7,023	JPY 1,029,537	£2,295	\$4,498	€3,511	CNY 35,641

Governing Members

The Membership Team at IWA HQ would like to wish all the best for the upcoming seasonal festivities and thank all the Governing Members for helping the International Water Association to have a successful year 2006.

We can now count on more than 50 active Governing Members helping us to promote our organisation worldwide.

Special thanks go to the Governing Members of France, Italy, Japan and Switzerland who contributed with donations to the Global Development Solutions fund.

Recruit-a-Member Competition

We have had a fantastic response from members recommending their colleagues to join the IWA. So far 102 individuals have been suggested as potential new members.

The 31st December 2006 Deadline for the Recruit a Member Competition is fast approaching – but you still have time to get involved by providing us with the name and email address of a water professional who could benefit from individual membership to IWA.

As a thank you, we'll enter you both into our prize draw, you'll receive recognition as we add your name to our list of participating members on the website and the member who recruits the most new members will win a £150 voucher to spend on an IWA event or membership.

Full details of the competition can be found on the IWA website (www.iwahq.org)

If you have any queries regarding your membership, please feel free to contact the membership team at members@iwahq.org.uk

Making the most of IWA...

NEW – IWA ONLINE DISCUSSION FORUMS

IWA has recently organised two online discussion forum sessions on its new website (www.iwahq.org). In the first forum, which was open during November, young water professional participants discussed career options with members of the council of distinguished water professionals, building on the successful young water professionals workshop in Beijing. A synthesis of this discussion will be available online soon.

The second discussion forum is looking at institutional arrangements and drinking water quality, with a focus on the Bonn Charter for Safe Drinking Water and Water Safety Plans, the forum is being moderated by previous IWA president Michael Rouse and will be open throughout December. All members are invited to participate and join the discussion. See the website for further details.

Peter Wilderer said:

“Take chances as they emerge.... Better not to stick to a career plan you developed sometime in the past. Looking ahead is the best advice I can give you.”



New Corporate Members

Netherlands Water Partnership – The Netherlands

www.nwp.nl

The Netherlands Water Partnership (NWP) is an independent body set up by the Dutch private and public sectors in the Netherlands to act as a national coordination and information centre for water-related issues abroad. The principal aims of the NWP are to harmonise the activities and initiatives of the Dutch water sector abroad and to promote Dutch expertise in water worldwide.

The NWP is the channel through which government bodies, NGOs, knowledge institutes and private organisations in the water sector share information on their activities and services.

Institute of Technology, Sligo – Ireland

www.itsligo.ie

IT Sligo is a progressive third level college in the northwest of Ireland whose vision is that IT Sligo will be recognised by students, staff and the communities we serve as the finest Institute of Technology in Ireland.

Water Industry Development and Promotion Association (WIDPA) – Taiwan

www.water.org.tw/english/et1.htm

WIDPA is a non-governmental, non-political, non-profit organisation. The objective of WIDPA is to coordinate with government policy, unite domestic and international water industry related experts and groups for the purpose of promoting technology innovation, research, development and renovation, upgrade industry capability and its by-value.

BHR Group – UK

www.bhrgroup.com

BHR Group Limited is an independent group of technology companies which provides knowledge-based fluid engineering services

and process technology solutions utilising its core competence, facilities and expertise in process technology and fluid dynamics.

LG Infrastructure Services – Australia

www.lgis.com.au

LG Infrastructure Services is a joint initiative of the Local Government Association of Queensland Inc (LGAQ) and Queensland Treasury Corporation (QTC). The business is carried on by Local Government Infrastructure Services Pty Ltd which is a private company that is owned by LGAQ and QTC in equal shares. It is a separate legal entity and does business with councils on its own account. As QTC represents the crown and LGAQ is a statutory body, Local Government Infrastructure Pty Ltd has the status of being a state authority.

Box Telematics – UK

www.boxtelematics.com

CPT Asia Holdings Limited – Hong Kong, China

www.cptlink.com

CPT was founded in 1998, and includes all international pipe construction and rehabilitation activities of the Hong Kong-based Chevalier Group. The Chevalier Group was founded in Hong Kong in 1970 and has 200 subsidiaries around the world, including companies in China, Southeast Asia, Europe, North America, Australia and the Middle East.

Kuwait Institute of Scientific Research – Kuwait

www.kisr.edu.kw

The strategic goal of the Water Resources Division is to engage in research and development (R&D) that provide high-quality technical support for the economical production, utilization, management, and conservation of water resources.

PT Tirta Cisdane – Hong Kong, China

Best Wishes to all our IWA Members!

Goodwill for the New Year • Bonne Année • Bliain nua fe mhaise dhuit • Felice Anno Nuovo • Feliz año nuevo • Allerbeste wensen voor een voorspoedig Nieuw Jaar • Vsetko najlepsie do Noveho Roku • Najlepsze Zyczenia na Nowy Rok • Die besten Wuensche fuer das Neue J • Voorspoedige Nuwe Jaar • Nahi varsh ka shub kamna • Feliz Ano Novo • S Novim Godom • Jie Ri Kuai Le • Nenmatsu-Nenshi no go- aisatsu o moushi-agemasu

News from IWA Publishing – www.iwapublishing.com

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

* Coagulation and Flocculation in Water and Wastewater Treatment *

Second Edition



Author: John Bratby

Coagulation and Flocculation in Water and Wastewater Treatment provides a comprehensive account of coagulation and flocculation techniques and technologies in a single volume covering theoretical principles to practical applications.

Thoroughly revised and updated since the 1st Edition it has been progressively modified and increased in scope to cater for the requirements of practitioners involved with water and wastewater treatment

ISBN: 1843391066 · October 2006 · 450 pages · Hardback

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

* Protecting Groundwater for Health *

Managing the Quality of Drinking-water Sources



Editors: O Schmoll, G Howard, J Chilton, I Chorus

Protecting Groundwater for Health provides a structured approach to analysing hazards to groundwater quality, assessing the risk they may cause for a specific supply, setting priorities in addressing these, and developing management strategies for their control. For health

professionals, it thus is a tool for access to environmental information needed for such a process, and for professionals from other sectors, it gives a point of entry for understanding health aspects of groundwater management. This book presents tools for developing strategies to protect groundwater for health by managing the quality of drinking-water sources.

The title belongs to WHO Drinking-water Quality Series

ISBN: 1843390795 · October 2006 · 704 pages · Hardback

IWA Members Price: £71.25 / US\$142.50 / €107.25

* Fluoride in Drinking-water *

Authors: J Fawell, K Bailey, J Chilton, E Dahi, L Fewtrell, Y Magara



The primary focus of Fluoride in Drinking Water is the prevention of adverse health effects from excessive levels of fluoride in drinking water. The book fills the urgent need, identified for updating the WHO Guidelines for Drinking-water Quality, for information on the occurrence of fluoride, its health effects, ways of reducing excess levels and methods

for analysis of fluoride in water. The book will be an invaluable reference source for all those concerned with the management of drinking-water containing fluoride and the health effects arising from its consumption, including water sector managers and practitioners as well as health sector staff at policy and implementation levels. It will also be of interest to researchers, students, and development workers and consultants.

ISBN: 1900222965 · October 2006 · 144 pages · Hardback

IWA Members Price: £37.50 / US\$75.00 / €56.25

* Communicating Science Effectively *

A Practical Handbook for Integrating Visual Elements



Authors: J Thomas, A Jones, T Saxby, T Carruthers, E Abal, W Dennison

This is a practical handbook on how to communicate science effectively. The first part is an introduction to the principles of science communication – what effective science communication is, why it is important, and how to do it. The principles in these chapters include how effective science communication can change societal paradigms and make one a better scientist. General principles relating to all science communication products include providing synthesis, visualisation, and context, assembling self-contained visual elements such as photos, maps, conceptual diagrams and data, formatting content to define and simplify terms, and eliminating jargon and acronyms. Formatting of these visual elements is also discussed.

ISBN: 1843391252 · October 2006 · 136 pages · Paperback

IWA Members Price: £22.13 / US\$37.46 / €33.75

* Water and Liberalisation *

European Water Scenarios



Editors: Matthias Finger, Jeremy Allouche, Patrícia Luis-Manso

The water supply and sanitation (WSS) sector is considered somehow different to most public utility networks and it has been excluded until recently from the restructuring processes achieved in other sectors. Water and Liberalisation: European Water Scenarios presents a better understanding of the specific demands of the WSS sector. Covering the operators' strategies, the regulatory dynamics as well as their interactions on the evolution of the sector, it addresses the likelihood, the nature, and the forms the WSS sector may take in Europe in the foreseeable future. Adopting a neutral political stance, the book analyses the implications of alternative scenarios in economic, ecological, social, legal, and institutional terms

ISBN: 1843391139 · January 2007 · 264 pages · Paperback

IWA Members Price: £48.00 / US\$90.00 / €71.25

* Human Pharmaceuticals, Hormones and Fragrances *

The Challenge of Micropollutants in Urban Water Management



Editors: Thomas Ternes, Adriano Joss

Human Pharmaceuticals, Hormones and Fragrances provides an overview of the occurrence, analytics, removal and environmental risk of pharmaceuticals and personal care products in wastewater, surface water and drinking water. The book covers all aspects of the fate and removal of PPCPs in the whole water cycle: consumption and occurrence, analytical methods, the legal background, environmental risk assessment, human and animal toxicology, source control options, wastewater and drinking water treatment as well as indirect reuse.

ISBN: 1843390930 · August 2006 · 468 pages · Hardback

IWA Members Price: £67.50 / US\$135.00 / €101.25

HOW TO ORDER

For more information on IWA Publishing products or to buy online visit 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

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

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.

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 www.iwahq.org

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