

## Portfolio NEWS...

The current Portfolio brochure (Summer) is now available with an extensive list of topical collaborative research projects including 17 new projects ranging from the Strategic Implications of the Water Framework Directive (CP219) to Sewer Blockage Monitoring (CP258). Just part of a £1.5 million programme co-ordinated by Liz Gimmler, Portfolio Research Manager. For a copy of the brochure email [anning\\_n@wrcplc.co.uk](mailto:anning_n@wrcplc.co.uk).

It's been a busy six months for Liz who has been instrumental in managing the update of the WRc Portfolio website [www.waterportfolio.co.uk](http://www.waterportfolio.co.uk). "It's now up and running with details of over 200 projects, which can be searched easily via key topic areas" adds Liz. "It's a great information source for the Industry and the latest update has been well received."

Liz has also found the time to run a series of Portfolio Awareness sessions with several water utilities. These short sessions act as a 2-way forum to focus on clients needs and ideas and explain just how Portfolio can help and involve them.

To arrange a bespoke awareness session contact Liz at [gimmler\\_e@wrcplc.co.uk](mailto:gimmler_e@wrcplc.co.uk).



## Testing Times

We sometimes forget how critical WRc's laboratories and test facilities are,

as the research base which underpins so much of our work and which differentiates us from so many of our competitors. But those same facilities not only enable us to build and refresh our own store of knowledge and expertise but also to derive leading edge solutions to problems.

Work has now started on an exciting new, commercially sensitive, contract for a major European supplier, using our facilities to test and prove a new product for worldwide commercial application. We hope this is the start of a long-term relationship, and one that is based firmly on the exploitation of both our skills and our facilities.

Other current work includes rapid column tests for artificially spiked contaminants, simulated product performance tests for commercial customers, Portfolio collaborative research, such as the effects and implications of manganese in

distribution systems, funded by four major utilities, and the production of enhanced treated sludge, funded by three utilities, and finally our own research.

As we add to our portfolio of product innovations, we will continue to use our laboratories, instrumentation laboratory, test facilities and workshops to put our ideas into practice. Such ideas include the ongoing innovative research SOLO project, featuring a large semi-full scale wastewater treatment plant, testing and refining alternatives for the activated sludge process.

And finally, work will commence shortly on a major investment in a new facility for Sahara™, our patented leak detection system and one of our most successful past inventions. This investment will include new, improved, operational facilities as well as facilities for the enhancement and development of the next Sahara™!

**Stephen Ramsey**  
Director of WRc Utilities



If you would like any further information on WRc's range of research and test facilities please email Ian Walker, Director Business Research at [walker\\_i@wrcplc.co.uk](mailto:walker_i@wrcplc.co.uk).





## WRc Takes Gold

A WRc Portfolio project scooped the Gold 2004 Innovation Award at the Yorkshire Water Business Excellence Awards recently for its collaborative research on 'Managing the Risk of Failure at Unmanned Sewage Works' (CP109).

The research project investigated, helped develop and then demonstrated the effectiveness of radio telemetry at small sewage works using low cost monitoring systems with low power requirements. This approach to manage failure risk at unmanned works gives water utilities a low cost, practical solution which reduces both capital and operating costs whilst retaining reliability.

Commenting on the project, Dr Issy Caffoor of Yorkshire Water said, "This project has resulted in alternative cost effective solutions for unmanned assets. It will enable changes to ways of working at such sites whilst reducing the risk of compliance failure. Further developments from the project incorporating new filter rotation monitors and the integration with GSM enabled webcam provides further opportunities for us. Yorkshire Water was very fortunate to have the test site in Yorkshire, which has enabled us to easily market the approach within our business. As a result we have very quickly moved to roll out the learning from the project into a large-scale pilot. We are very excited by the opportunities this will provide."

Stephen Russell of WRc adds "This is a great example of how WRc is working with a group of water utilities and suppliers to produce equipment reflecting the needs of the water industry. The technology is designed to be cheap, largely off the shelf and robust."

Yorkshire Water is now rolling out the technology throughout the business and is currently implementing the work around the city of York.

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## Industry Seal of Approval for WRc's launch of Self-Lay Workshops

At Scottish Power's Network 2004 Conference for housebuilders last month, a unanimous thumbs up was given to the programme of regional workshops on the self-laying of water mains and services to be held early next year by WRc Utilities.

Ray Farrow of The House Builders Federation praised WRc for its work in producing the Code of Practice, which provides clear and comprehensive guidance to the industry, and Geoff Tute of Southern Water recommended the regional workshops to all developers and contractors.

The workshops will provide developers and contractors with clear in-depth guidance on all the policies, processes and requirements for allowing self-laying of water mains and services.

The workshops will be held in specific regions and cover a number of water company areas, and guidance will focus on implementation in those companies. Water company representatives will be attending to answer specific questions on issues surrounding self-lay. In addition, the newly accredited

qualifications for Network Construction Operations (Water) will be outlined by Energy and Utility Skills.

"The workshop forum will be ideal for discussing the benefits and problems associated with self-lay," comments Julia Trew of WRc, who has organized the workshops. "We are expecting a great deal of interest not only because of this endorsement but also because of the unique, comprehensive nature of the workshops."



These key regional workshops will be held in Bracknell (27th January), Milton Keynes (2nd February) and Derby (10th February). A further seminar will be arranged in the South West.

**To reserve a place, contact Martine Gibbons on Gibbons\_m@wrcplc.co.uk  
For other information on WRc's extensive self-lay programme,  
e-mail selflay@wrcplc.co.uk.**

## WRc helps launch Earth Summit in Swindon

WRc participated in an Earth Summit held for children aged 9-10 as part of its community relations programme. The event run by Swindon Borough Council and sponsored by regional companies covered a number of topics including energy, waste, sustainable lifestyle, transport and water, natural sculpture and environment.



WRc presented the Water workshop, which looked at processes used within water and sewage treatment works. Samples of water, effluent and sludge were shown to the attendees who were very receptive, most attempting to sniff the bottles! Water minimisation was also discussed. Feedback was extremely positive and the event will now be held annually with WRc's help.

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# IBNET

Water & Sanitation **INTERNATIONAL BENCHMARKING NETWORK**

The new IBNET (International Benchmarking Network) web-site was launched by WRc at the IWA Congress in Marrakech in September.

Together with an IBNET Specialist Workshop on benchmarking, the project team ran an exhibition stand for IBNET at which visitors could receive a demonstration of the new web-site and take away copies of the IBNET Toolkit for Benchmarking.

The Toolkit provides those people or organisations that want to start new benchmarking or performance comparison work with templates for indicators, easy-to-follow data input sheets and guidance on undertaking benchmarking. The IBNET web-site provides an easy-to-access means of using the indicator sets for regional and international comparisons.

The web-site is also intended to grow into a benchmarking resource for water and wastewater utility practitioners, and this resource centre includes information about others undertaking benchmarking and the indicators used in other schemes. It will provide access to information about best practice, links to other useful websites and support for establishing partnering between benchmarkers.

The IBNET team was delighted with the interest shown by the many visitors who received a demonstration of IBNET. These included delegations from Indonesia, Singapore, Malaysia, Japan, North America, Europe and a number of countries in Africa.



IBNET project manager, David Milnes, commenting on the success of the IBNET launch, said that he "was extremely positive about the future role IBNET can play in supporting management improvement in the water and sanitation sector around the world. Benchmarking is an important tool for management improvement, and improving data quality is now an important objective of IBNET."

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## Bridging the Asset Management Gap



July saw the establishment of the first Leading Edge Conference on Strategic Asset Management organised by the IWA and held in San Francisco. Attended by over 200 Asset Managers, owners and operators from a wide range of countries, the conference focussed on best practice approaches to asset management from the viewpoint of the various stakeholders.

Among the invited speakers were WRc's Director of Asset Management, Will Williams, who presented the EU funded Computer Aided Rehabilitation of Water Mains project (Care-W) and Senior Technical Consultant Paul Conroy who presented on integrated above ground asset management approaches.

Will and Paul certainly felt that the event was very worthwhile. "The Conclusions of the conference were used to define a set of themes, which describe 'what constitutes good Asset Management.' These themes were then recommended to IWA as central to a follow-up workshop which was held in Marrakech at the World Water Congress," comments Will. "The aim is to use these outputs to form the scope of an IWA taskforce on Asset Management issues."

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## WRc and BOC Foundation take wastewater to the Max!

**THE BOC FOUNDATION**



WRc plc was recently awarded £40,000 seed funding from the BOC Foundation, plus additional support from

Yorkshire Water, to demonstrate at pilot scale, a new and innovative wastewater treatment process. "WRc is delighted to develop the Max-N process, which will investigate a design variant of the commonly used activated sludge process, which aims to maximise biological nitrification." David Lennard, WRc's Head of Innovation, explains.

"Existing, conventionally designed treatment plants are expected to have difficulty in achieving the proposed very low ammonia targets in treated effluent. Such targets, which are aimed at further improving environmental quality will be difficult to meet other than by very costly enlargement. Max N could ultimately be the answer to this problem."

The process has been identified by the use of computer modelling techniques, designed to increase the concentration of nitrifying micro-organisms in a particular stage of the process, thus maximising their effect and reducing the concentration of ammonia in the treated effluent. The project will also be a valuable test case for the power of these widely used computer models.

Barry Beecroft from the BOC Foundation adds "BOC is pleased to support this project to reduce ammonia discharges from sewage treatment works in line with the expected tightening of legislation. This also complies with the Foundation's funding policy of supporting projects which seek to improve fresh water or air quality."

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# WRc Portfolio 'On Call' for Yorkshire Water



Becoming a doctor was not part of Liz Gimmler's career path, however it hasn't stopped her setting up a "surgery" with water company

Yorkshire Water. In her role as Portfolio Manager, Liz 'diagnosed' with the R & D team at Yorkshire Water that real benefits could be made, by holding a "surgery" to discuss current issues such as climate change and energy efficiency that affect their R & D needs and budgets.

Dr Issy Cafoor, R&D Programme Manager at Yorkshire Water explains "Identifying business need is always an essential precursor to developing business-relevant research programmes. I am pleased to see that WRc recognise that talking to the problem owners and practitioners is an essential part of this process. We welcomed the opportunity to talk to Liz and her team in order to help formulate their research portfolio."

Being no stranger to brainstorming, Liz has also agreed to work with another



YorkshireWater

large water utility later this year on pinpointing and prioritising their R & D needs. "The bottom line is reducing risk, decreasing unit costs and improving operational efficiency but also being mindful of impending legislation and environmental concerns to establish a clear cut research programme". Liz is offering her "surgery" to other utilities and will adapt length and content to suit their needs.

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## Flexibility in the Workplace Costa Rican Adventure

WRc Economic Analyst Amanda Bailey recently took a 6 week 'paid holiday' from the office to follow her passion for conservation, when she travelled to Costa Rica to join PRETOMA, a local charity dedicated to the protection of Oliver Ridley sea turtles.



"One of the threats to the survival of sea turtles comes from the poaching of eggs, which volunteer projects can help to minimise. I worked in shifts at night with five other volunteers patrolling the beach at San Miguel, on the Pacific coast. We located nesting turtles, which were tagged and measured. If the turtle was successful in laying eggs, these were transferred to the hatchery." Amanda explains, "Once safe in the hatchery the eggs were monitored during their gestation period and released once hatched. Such was the predominance of sea turtles this year that a second hatchery had to be built."

Despite all this activity on the beach, Amanda still had the time to teach English and environmental studies, and so enjoyed the Costa Rican lifestyle that she is hoping to plan another trip next year.

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## Closer Ties with Colombia

September saw WRc play host to a prestigious group of visitors from Bogota, Colombia. Dr Humberto Triana, Technical Director of the Bogota Water Company (Empresa de Acueducto y Alcantarillado de Bogota - EAAB) along with Juan-Manual Gutierrez from the environmental regulator and Carlos Giraldo who represents WRc in Colombia, spent a week here at WRc Swindon studying the water industry in the UK.



Bogota is a rapidly growing city of approximately 8.5 million people with all of the commensurate problems of a large urban population. Bogota possesses just one chemically assisted primary wastewater treatment plant treating 4m<sup>3</sup>/second, with the rest of the effluent generated passing directly into the Rio Bogota untreated. WRc has been assisting EAAB with optimising the performance of the treatment plant over the last 3 years.

The Colombian visitors were particularly interested in the methodologies employed in the UK to help clean our rivers over the last 20 years and learning about new technologies which could be transferred for use in Colombia. One day was spent visiting state of the art wastewater treatment plants of Southern Water and Thames Water. Clearly they went away having learnt many new methods to assist in the difficult task of cleaning up the Rio Bogota.

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## All Eyes on WRc Approved™

With the publication of OFWAT's interim price determination, attention is turning to the potential new business that will arise. "There has been a corresponding increase in interest from manufacturers, contractors and utilities in the WRc Approved™ 'fitness for purpose' certification scheme," comments Ian Naismith of WRc. At the recent international exhibitions Aquatech in Amsterdam and NO Dig Live in the UK, exhibitors have been flying the WRc Approved™ flag in their marketing initiatives, reaffirming its importance to the water industry.



WRc took the opportunity at No Dig Live, to award two new interim certificates to Perco Engineering Services of Germany for installation of the Brandenberger sewer relining system and to Cleanflow Systems for its "Clearline" battery powered attachment for pipe inspection CCTV cameras.

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