Environment Agency

water demand management bulletin

www.environment-agency.gov.uk/savewater

Issue 91 October 2008

Agency response to draft plans

The Environment Agency wishes to see many of the water companies put more effort into, amongst other things, water efficiency and leakage in their *Water Resources Management Plans*.

Most of the water companies report per capita household consumption figures greater than the Government's vision of 130 litres/head/day by 2030. The Agency wishes companies to include in their plans, the significant contributions they should be making to reduce water use towards this figure.

Many companies predict that leakage levels will remain at the same level and several predict a slight rise.

The Agency does not wish to see leakage rise and, in a number of cases, wishes to see it driven down, especially where a company has stated this in its *Strategic Direction Statement*.

In some cases the companies fall well short of the Agency's wish to '*see the majority of homes in seriously water-stressed areas metered by 2015, while recognising that many meters will need to be installed, and that some companies may not be able to achieve full metering until 2020*'.

The Environment Agency believes that companies could also take advantage of such levels of metering by using metering as a platform for achieving greater savings from the use of smart meters, variable tariffs and as a way of achieving reductions in supply pipe leakage.

In the south east of England, in particular, the Agency would like to see water companies working together to share water resources.

Water companies in England are due to respond by early November, to representations made following their public consultations. The Secretary of State may then ask water companies to change their plans. Water companies will then make changes to their plans before final publication in July 2009.

Visit www.environment-agency.gov.uk/subjects/waterres/981441/1823555/?version=1&lang=_e to see the full Agency responses.

EXPO 2008

EXPO 2008 in Zaragoza exceeded expectations. Over five million people visited this water themed event between mid-June and mid-September. See page 5 for a report.

In this issue...

Viewing bathroom fittings

As part of the Water Saving Group's water efficiency research, Defra have published *Consumer Attitudes to Water Efficiency of Bathroom Fittings: Quantitative Research*.

Interviews, mainly face-to-face, were carried out in March 2007 with 1,088 respondents around Great Britain as part of ONS omnibus survey.

Almost two fifths of respondents said they had paid or would pay attention to water efficiency when choosing WCs (37 per cent). The number was much lower for taps (15 per cent) and showers (19 per cent).

After digesting the responses, the report presents a set of actions and research recommendations, shown in table 1.

Other conclusions can be obtained by downloading the report via www.defra.gov.uk/environment/water/conserve/wsg

Table 1. **Recommendations for action and research**

Action

- ensure that water efficient fittings meet consumer priorities by pricing competitively and offering a wide range of styles
- for a quick win, focus on promoting water efficient WCs and targeting metered consumers and consumers who buy from builders/plumbers merchants
- in the longer term, work on promoting water efficient taps and showers, and targeting unmetered consumers and consumers who buy from DIY stores
- reinforce positive expectations about lower running costs and address negative expectations about poor performance
- adopt a multi-pronged approach to promoting water efficient fittings but focus mainly on financial initiatives such as discounts and information on running cost savings.

Research

- explore how to motivate consumers who tend to take less interest in water efficient products at present, including unmetered consumers and those buying from DIY stores
- establish the basis for negative expectations about the performance of water efficient fittings
- before introducing new initiatives to promote water efficient fittings review experiences in other areas and explore preferences in more detail with consumers.

Table 2. **Factors considered when choosing bathroom fittings**

Respondents who had bought/planned to buy bathroom fitting(s)

Factors	% respondents considering each factor		
	Basin taps	**Shower**	**WC**
Looks	72	56	61
Price	68	66	60
Ease of use	44	49	31
Effectiveness for washing/of flush	19	38	43
Ease of cleaning	27	25	29
Amount of water used	17	21	39
Comfort	n/a	20	n/a
Came with basin/bathroom suite	14	n/a	19
Brand	11	17	13
Responses	**567**	**561**	**559**

Percentages sum to more than 100% as respondents could give more than one answer.

Managing water abstraction

The Environment Agency has issued the *Managing Water Abstraction* as an '*interim update*' of developments.

The future of water abstraction licensing policy in England and Wales will, amongst other things, impact the supply/demand balance. This applies in the development of Catchment Management Strategies (CAMS) in the context of the implementation of the Water Framework Directive and the Habitats Directive.

The report can be downloaded via www.environment-agency.gov.uk/publications

Waterwise plans verdict

Waterwise echoed Agency impressions, as relayed in their response to the six *Water Resources Plans* that closed for consultation on 25 July.

'They have little in the way of demand management, aside from a couple of relatively impressive metering programmes.

Though metering is an important tool that enables the management of demand, we do not feel that it can be relied upon alone to reduce demand ... it is concerning that several companies have relied solely on metering as their only means through which to control demand.

It is a disappointment that several companies with relatively ambitious metering programmes have not taken the opportunity to piggyback water efficiency programmes onto meter installation ... many companies are not advancing as quickly as possible with their metering programmes – some reach full metering only in forty years time!

Waterwise continue to subscribe to the 'Blueprint for Water' demand that full metering be implemented in all areas of water stress by 2015, and in all non-stressed areas by 2020.

While some companies should be commended for the schools and awareness-raising activities ... none have proposed large-scale water efficiency programmes.

None have gone much above their baseline water efficiency activity, which is required of them by Ofwat.

None of the companies' predictions for future demand incorporate the 'Future Water' aspiration that pcc in new homes will be reduced to 130 litres by 2030, some claiming that this reduction is 'not possible'.

We applaud the companies that have specifically mentioned the energy/carbon benefits ... however, we were disappointed to see that this association has not led them to consider large-scale water efficiency programmes that would reduce the carbon footprint of water supply and treatment, as well as the carbon footprint of water use in the home'.

Waterwise feel strongly that companies should be required to present their plans in a standard format.

Visit www.waterwise.org.uk/reducing_water_wastage_in_the_uk/policy/consultation_responses.html to see the full Waterwise responses.

Climate change impetus

Interest in climate change is increasing as we approach the publication of the new UK climate change scenarios (UKCIP08), due in November.

This June the Intergovernmental Panel on Climate Change (IPCC) released their technical paper on *Climate Change and Water* (**www.ipcc.ch/pdf/technical-papers/climate-change-water-en.pdf**) that sets out the overall picture for the water sector.

It spells out a number of global generalisations including:

- climate model simulations for the 21st century are consistent in projecting precipitation increases in high latitudes (*very likely*) and parts of the tropics, and decreases in some subtropical and lower mid-latitude regions (*likely*)
- globally, the negative impacts of future climate change on freshwater systems are expected to outweigh the benefits (*high confidence*)
- current water management practices may not be robust enough to cope with the impacts of climate change
- climate change challenges the traditional assumption that past hydrological experience provides a good guide to future conditions
- adaptation options designed to ensure water supply during average and drought conditions require integrated demand-side as well as supply-side strategies.

Ofwat have weighed in with *Preparing for the Future – Ofwat's Climate Change Policy Statement* (**www.ofwat.gov.uk**).

This sets out several commitments including:

- publishing a wide-ranging, fact based summary of climate change adaptation in the water and sewerage sectors after the 2009 price review
- developing reporting on greenhouse gas emissions not covered by the Carbon Reduction Commitment and will consider the case for further policy instruments in this area
- reviewing the impact and effectiveness of including the shadow price of carbon after the 2009 price review
- protecting consumers' interests, both now and in the future, by making sure that climate change and sustainability are reflected in the price review process.

UK's large water footprint

Average household water use in the UK is 150 litres/head/day but, according to WWF-UK, our consumption of produce from other countries means that each of us effectively soaks up 4,645 litres of the world's water every day.

The World Water Week in Stockholm was the opportunity for WWF-UK to launch their report *UK Water Footprint: the Impact of the UK's Food and Fibre Consumption on Global Water Resources*.

The message is that the UK is nowhere near self sufficiency in water where 62 per cent of the water footprint is accounted for by water from outside the UK.

So what is to be done? The report gives advice to politicians, business leaders and consumers and confidently suggests to government that '*you may need to undertake a water footprint of your own procurement procedures*'.

It says that business leaders need to focus on where the impacts are most harmful while asking suppliers to be more water efficient and invest in their efforts where possible.

Citizens can ask businesses, such as supermarkets, to tell them what they are doing to ensure good water management along their supply chains.

Visit www.wwf.org.uk/researcher/issues/freshwater/0000000308.asp to download the report.

Wales moves ahead

The Welsh Assembly has moved ahead by incorporating climate change into the planning process. Having already consulted on climate change in 2006 it has issued *Further Consultation on Planning for Climate Change* (**www.wales.gov.uk**) to include developments on the zero carbon aspiration and the *Code for Sustainable Buildings in Wales*.

It also includes a summary of the main finding from the earlier consultation.

Frontier view

The Environment Agency and Ofwat have published an investigation into *Leakage Target Setting – A Frontier Approach* (**www.ofwat.gov.uk**).

This project set out to develop '*a workable methodology for a frontier based approach to leakage target setting*'.

The consultant, WRc, used regression analysis to derive conceptual models which attempted to explain the variation in leakage between companies in terms of active leakage control performance, the operational constraints faced by companies in managing leakage and the condition of the infrastructure.

A modeling framework was developed using publicly available and audited data.

The robustness of the models and the modeling process was limited due to the relatively small number of companies and the availability of data that could be used to explain the operational constraints and asset conditions faced by different companies.

As a consequence, WRc found that there appear to be a number of inconsistencies between the ranking derived from the preferred model and that which would be expected by industry experts.

Thus it is considered that the modeling framework has been taken as far as possible with the data that was made available.

The report concludes that the model is '*not fit for purpose*' for ranking companies in terms of active leakage control efficiency.

WRc still has faith in the approach by saying '*whilst the models developed to date were not fit for purpose, the principle behind the modeling framework is still relevant*'.

In the meantime the report suggest that, for PR09, companies should be asked to produce the marginal cost of water data at company level, and a revised high density function calculated at smaller geographic areas, to allow these to be incorporated into the preferred model to determine whether this can produce a more robust ranking of companies in order of active leakage control efficiency. If the model is sufficiently robust it should then be used to challenge the ELL calculations.

EXPO 2008

It really needed the three day ticket to experience the pavilions from over 100 countries who contributed to the event. Visiting for one midweek day (just after the King paid his dues) meant missing out on many of the popular pavilions.

The queues for the Spanish, German, Japan and even the Kazakhstan and Holy See pavilions were too long to contemplate, especially in the 32 degrees heat.

There was still much to enjoy. The secret was that it was very family oriented with many interactive and ingenious designs to communicate the central message that water is a precious and finite resource.

Many hundreds of visitors gathered on the banks of the Ebro at 10.30pm to see the giant 'iceberg' open and exhibit a dynamic light and sound show warning how we are warming up the planet through unsustainable practices. It ended by expressing hope through the actions of the next generation.

EXPO 2010 takes place in Shanghai with the theme '*better city, better life*'.

Already 201 countries and international organizations have accepted China's invitation and there is a pledge to attract more than 70 million visitors to the event.

At a European Network Partnership workshop on 4 September in Zaragoza the recommendation was that the important lessons learned from EXPO 2008 should feed into EXPO 2010.

Water saving city

Zaragoza's landmark *Water Saving City project* (see *Bulletin* 80, page 6), run by ECODES, finally came to an end after ten years, coinciding with EXPO 2008. The final stage was to obtain 100,000 pledges from the City's residents to save water which, in the event, was well exceeded.

The legacy, though, lives on. The lessons learnt are being applied in a similar project in Vittoria with the first phase due to report and a second stage about to begin. Similar projects are now taking place in the Cantabria Region in Northern Spain and in Huesca one of three provences of the Aragon Region.

ECODES was executive secretariat of the NGO Faro Pavilion (below, right) at EXPO 2008 that collected pledges from visitors (below, left) to save water and also gave demonstrations on how to save water in the home.

ECODES work for two years in the coordinating and arranging the participation of the 350 NGOs involved in the pavilion.

Furthermore, as commissioners of the pavilion, they were responsible of the content of the pavilion, following consensus over the themes from the 29 organisations included in the '*council of the pavilion*'.

They were responsible for production of the activities that were programmed during the 13 weeks involving more than 700 volunteers.

Visit the website www.elfaro2008.org where you can see how the El Faro pavilion was built applying energy efficiency, recycling and sustainability principles.

AWE web library

The Alliance for Water Efficiency is launching a comprehensive web-based *Water Efficiency Resource Library*, in cooperation with the US Environmental Protection Agency.

The library is intended as a one-stop shop for water efficient products and program information.

Library sections cover residential plumbing and appliances, toilet testing, landscape and irrigation, commercial and industrial water conservation, water rates and rate structures, water loss control, codes and standards, drought planning, and numerous other topics.

Research reports, published documents, and case studies are included, providing a comprehensive picture of what water efficiency measures prove to be the most successful, and how water utilities and consumers can best achieve water efficient use.

Upcoming features being added to the site are state by state summaries and an on-line discussion forum.

For details visit www.allianceforwaterefficiency.org

Efficient 2009 – call for papers

The 5th IWA Specialist Conference *Efficient2009* conference pamphlet is now available with a call for papers. Abstracts should be submitted by 30 January 2009 with notification of selected papers by April 2009. The full papers should be submitted by June 2009. The conference takes place in Sydney, Australia between 25 and 28 October 2009.

Abstracts must be submitted online at www.efficient2009.com from where the pamphlet can be downloaded.

Communicating on water scarcity and droughts

EXPO 2008 in Zaragoza was the setting for a '*European Day*' on Water Scarcity and Drought, an opportunity to debate the working paper *Follow-up Report on the Communication on Water Scarcity and Droughts [Com (2007) 414 Final]* (see *Bulletin* 85, page 6)

The conference took place on 5 September and attracted an impressive list of speakers including Stavros Dimas, Commissioner for Environment at the European Commission and Elena Espinosa, Spanish Minister of Environment, Rural and Marine Affairs, reflecting the interest in and support of the '*Communication*'.

Session moderator José Rocha Alfonso reminded the audience that the communication puts '*priority on water savings and water efficiency measures before any other alternative*'.

Stavros Dimas confirmed that the EC are taking the *Communication* very seriously as things will become more costly if we do not act now.

Peter Gemmeltoft, Head of Water Unit, DG ENV, European Commission, has been instrumental in developing the *Communication*, gaining support and steering it through the European system.

He explained how the Water Framework Directive only makes general reference to demand management and that the *Communication* will give a greater clarity on the subject and provide a framework for countries to consider and apply demand management

He emphasised the importance of integrating water scarcity and drought with other aspects, particularly land use planning, energy and climate change. There is a clear need to link with the *Adaptation to Climate Change* white paper that is due out early next year.

He set out the next steps needed on key measures of the *Communication* in the report and the accompanying work programme.

He concluded saying that the Commission has committed to adopt the report by the end of the year and there will be a review of the strategy on water scarcity and droughts by 2012.

Judging by the generous and relevant references to the work on water efficiency and drought planning in the UK, the working paper thoroughly summarises current activity across Europe.

Alternatives

One of the work programme items *Assessment of Alternative Water Supply Options* was presented by VTI's Peter Campling.

The project looked at desalination, waste water reuse, rainwater harvesting and groundwater recharge related to household, industrial and agricultural use. The work considered a number of case studies and assessed the risks and the impacts, considering mitigation measures and the conditions for sustainable development. The report should be available before the end of the year.

ACTEON's Pierre Strosser detailed another on-going investigation *Economic and Environmental Impact from Land Use Planning and Water Pricing as Responses to Droughts and Water Scarcity*. They had gathered evidence from Cyprus, Hungary, Spain, France and south east England to examine whether a fifty per cent reduction in water abstraction is practically and economically achievable and what costs and benefits such reduction would have.

One of the conclusions is that each case study requires a different target for water abstraction reduction to ensure ecological improvements.

Drought monitoring

Europe is close to having a drought monitoring system, similar to that in place in the USA.

Leendert Hordijk explained the progress by the Institute for Environment & Sustainability's Joint Research Centre in developing a *Drought Observatory and Early Warning System*.

It is to be a web-based platform looking at the river basin, member state and the EU level. It is expected to be live by the end of October.

Much of the data already exists but not for drought purposes and the Centre has been collecting it together to produce a real-time monitoring system. Forecasting products are now being added.

The European Environment Agency (EEA) is investigating parameters and indicators on water scarcity and droughts. The EEA's Jeff Huntington admitted this is presenting quite a challenge.

Italian job

The was an excellent example of applying demand management from the Regione Emelia Romagna in Italy.

Guiseppi Bortone said the programme of measures were designed to reduce per capita consumption from 170 to 150 litres a day by 2016.

He saw the *Communication* as vital in giving support and a framework to organisations such as his in Italy where there is still a prevailing resource development culture.

With an emphasis on stakeholder involvement the programme includes a water losses research programme, installing water saving devices project and public campaigns on water saving and education. It includes land use planning and building construction regulation as well as new water tariffs to provide incentives to save water.

This complements a programme of measures for irrigation systems. Guiseppi Bortone added that the water management/energy relationship needs to be investigated.

UK population changes

Mike Walker introduced the audience to Defra's water strategy *Future Water* and went on to give a full review of the activity in England and Wales, especially the development of water efficiency and leakage targets.

He thought that population changes are likely to be more significant than climate change in the UK in the short term, but that view may change as we go forward.

He stressed the need to include social and environmental costs in both supply and demand options but posed the question of how we can do this and add the costs together in a meaningful way

Trojan horses

Professor Mike Young warned of a couple of 'trojan horses' gleaned from experience in Australia. By over-optimising water efficiency, when a water shortage occurs there is little flexibility left to reduce water use whilst maintaining water efficiency can be expensive.

He also warned against having adaptive policies as well as flexible actions as this induces confusion where responsibilities lie.

The presentations can be found at http://ec.europa.eu/environment/water/zaragoza08/index_en.htm

Metering and charging review

Anna Walker, Chief Executive of the Healthcare Commission, has been appointed to lead the independent *Review of Household Charging and Metering for Water and Sewerage Services* that will:

- examine the current system of charging households for water and sewerage services, and assess the effectiveness and fairness of current and alternative methods of charging
- consider social, economic and environmental concerns
- make recommendations on any actions that should be taken to ensure that England and Wales has a sustainable and fair system of charging in place. This could include changes to current legislation and guidance.

The Review, expected to be completed in Spring 2009, will reach conclusions on:

- the effectiveness and fairness of charging methods, taking into account current trends in water metering and the use of the rateable value based system
- the appropriate pace of change and method of moving towards universal metering to ensure sustainable abstraction in areas of water stress
- the cost and benefits of metering, taking into account all costs including the full social cost of carbon
- the effectiveness of different types of innovative tariffs in helping vulnerable households and/or reducing demand
- the effectiveness of measures to manage affordability concerns for low income households
- the impact on health and health inequalities of current and alternative methods of charging
- the effectiveness of measures to incentivise people to pay for their water and sewerage services and minimise the impact of bad debt on customers that do pay, excluding disconnection.

Visit www.defra.gov.uk/news/2008/index.htm for details.

United Utilities' audits & showerheads

United Utilities have been busy recently in producing reports on two water efficiency projects.

United Utilities Home Audit Project, undertaken by WRc, examined the practicality and costs involved in promoting a range of water saving devices.

4,642 households were contacted and 393 household audits were undertaken. 212 showerheads, 384 Save-a-flush bags and 193 Eco-beta flush toilets retrofits were fitted.

Table 3. **Estimated water savings**

Device	l/prop/day
Dual flush	2*
Save-a-flush	10
Showerhead	37

** Savings from retro- fitting dual flush devices were significantly lower than expected. Possible reasons for this include a high percentage of new properties in the trial, errors in fitting the device, and no customer education on correct use of the device.*

The trial shows that there were total savings of 47 litres/property/day and that it costs 107.1 pence to save one cubic meter of water.

Showerhead offer

The second study United *Utilities Water Efficient Showerhead* follows on from the earlier *Water and Energy Efficient Showers Project* (*Bulletin* 84, page 3)

Two thousand domestic metered customers were contacted and offered a free aerated showerhead by post. In the event 118 customers completed the showerhead trial and 70 per cent said they would continue to use the showerhead.

The showerheads were shown to reduce a customer's shower flow rate by an average of 41 per cent, a saving of 39.5 litres per household per day. Every megalitre of water saved from a domestic shower also saves 12 tonnes of CO2 emissions. The study suggested to costs around 15.3 pence to save one cubic meter of water through this approach.

The report concludes '*even in a small trial, aerated showers have the potential to help customers reduce their water demand at a highly competitive cost*'. The report adds that '*there is the potential for still larger social benefits when energy savings are included*'.

Full details of the trial can be obtained via www.unitedutilities.com

On target

Ofwat's consultation on water efficiency targets gained a generally positive response both from the Environment Agency and Waterwise.

The Environment Agency says that companies should be given sufficient flexibility to implement appropriate and cost effective water efficiency activity.

On the question of whether the targets should be restricted to non-household activity the Agency thinks Ofwat should not set limits on levels of household or non-household activity at this stage, however, companies must be required to fulfil their statutory duty to promote water efficiency to all their customers and that Ofwat should challenge companies whose plans do not satisfy this objective.

Water UK reminds Ofwat that it needs to make it clear that water companies cannot deliver water efficiency alone, and that it '*requires concerted effort by many stakeholders*'.

Water UK is concerned that communication and education programmes may be perceived as being less important if they are not explicitly measured or counted towards the achievement of base level targets. There is also surprise that there is no mention of carbon in the consultation.

Water UK say they would be willing to work with Ofwat on developing financial incentives for water conservation.

For full the responses visit www.environment-agency.gov.uk, www.waterwise.org.uk and water.org.uk

OFWAT on international duty

Ofwat has made its latest international comparisons, including leakage and water efficiency, available on-line.

Given different structures in water management across the world, the data is fairly limited. However Ofwat are keen to expand the comparisons by saying that they '*welcome new opportunities to compare international water enterprises with those in England and Wales, and actively seek new partners with which to work. Please email us at internationalcomparators@ofwat.gsi.gov.uk*'.

The latest figures are available at www.ofwat.gov.uk/aptrix/ofwat/publish.nsf/content/rpt_int_08intro

Waterwise annual report

If you wish to obtain an update on water company water efficiency projects you can download the latest Waterwise annual report from the website **www.waterwise.org.uk**

The report announces that Waterwise is working with the Energy Saving Trust to deliver RENEW (Regional Environmental Networks for Energy and Water) – a consumer facing initiative providing combined water and energy advice through the Energy Saving Trust's existing advice network.

The project will engage in awareness raising campaigns in three pilot urban areas (each in England, Scotland and Wales) and will explore the role of local conditions in promoting water and energy efficiency.

Waterwise will be responsible for developing the water component of the advice as well as identifying the synergies and trade-offs between water and energy advice in domestic use and as a means to gauge net impacts of both. The project is set to begin in January 2009 and end in 2011.

Newsletter

Waterwise has just issued its second newsletter that tells the world about its activities. To get on the list you can email **info@waterwise.org.uk.**

The principal sponsor for the 2008 Waterwise conference (see Diary on page 9) will be the bathroom manufacturer, Grohe.

Exeter exports WDM

Exeter University's Dr. Fayyaz Memon, with support from the British Council and DFID, has started a three year capacity building project for urban water demand management research in the higher education institutions in Pakistan.

The project includes: setting up three pilot scale demonstrations sites for greywater treatment and reuse, development of a postgraduate module on urban water demand management, development of a web based WDM resource and organisation of two regional workshops and an international conference on WDM related issues. The project partners include National Centre of Excellence in Analytical Chemistry (Sindh University), Mehran Engineering University and Sindh Agriculture University Pakistan. The project cost is about 12m Pak. Rupees.

The first regional workshop was hosted by Sindh University at Hyderabad and attracted 150 participants from different research institutions across Pakistan. Experts from Exeter and Cranfield University and Water Works UK contributed to the technical sessions.

Inaugurating the workshop, the Vice Chancellor said '*it is encouraging that foreign experts in the field of water saving and recycling have also joined the workshop on this occasion' and he 'hoped that surely their deliberation will be of immense help in learning more about water demand management*'.
For further information, please email f.a.memon@ex.ac.uk.

Labelling update

There are now thirteen brands supporting the Bathroom Manufacturers Association's *Water Efficient Product Labelling Scheme*. They are:

Armitage Shanks, Ideal Standard, Intatec, Jika, Kohler Mira, Laufen, Lecico, Pegler, Qualceram Shires, Roca Roman, Thomas Dudley, Twyford Bathrooms.

The *Labelling Scheme* will be present at the *Annual Bathroom Conference* (see Diary on page 9).

By August there were 350 products in the scheme broken down as follows:

- WC suites 182
- independent flushing cisterns 20
- tap & combination tap assemblies 11
- shower controls 83
- baths 75

The Bathroom Manufacturers Association have produced a report, available to *Scheme* members, on research material on water efficiency to help manufacturers identify the main drivers, customer perception and interest from the marketers of efficient bathroom products.

Visit www.water-efficiencylabel.org.uk for details.

Retrofits a tankless task

Using the above headline, the Melbourne Age reports that Victoria State Water Minister Tim Holding has upset environmental groups with a blunt warning that rainwater tanks are expensive and even destructive when installed in existing houses rather than new homes.

In a letter to a Melbourne resident he wrote that while tanks are 'excellent' for saving water around the home, they are of limited use because they tend to collect most water in winter when it's needed least adding '*in many cases the layout of the house and the style of the piping means it is actually impossible to retrofit a tank*'.

The Age says it understands the minister has installed a tank at his own home in East Melbourne but it is believed he did so under sufferance and has been known to complain about the inconvenience of it adding that he has not responded to questions about his own experience with a tank at home.

Ireland facing shortages

A report by Forfás, the national policy advisory body for enterprise and science, says that the urban areas of Dublin, Galway, Athlone and Letterkenny could face water shortages over the next five years unless major investment is made in infrastructure by 2013.

The report says '*about 43 per cent of water in these areas is lost before it reaches the consumer*'.

Forfás chief executive, Martin Cronin, said '*reducing the levels of leakage occurring and encouraging greater water conservation among businesses and domestic users has the potential to reduce the level of capital investment required*'.

Both major political parties are publicly against the introduction of water charges for domestic customers. However, the report does say '*the full cost of providing water services for domestic users needs to be clearly identified to ensure the requisite funding levels are provided from central government. Having established the cost of delivering water services to domestic users, an analysis of the merits of retaining the current EU derogation on domestic water charges needs to be undertaken to determine how best to fund water provision between user and Exchequer sources*'.

Visit www.forfas.ie/publications/show/pub306.html to download the report.

A down under approach to WDM

The Institute for Sustainable Futures (ISF), who are hosting *Efficient 2009* (see page 4), are also at the centre of water efficiency research in Australia. Andrea Turner sent details of the latest project.

An 18 month project has been commissioned by the National Water Commission of Australia to develop resources and tools to assist urban water service providers and government agencies across Australia understand:

- how much water is used in their region
- how much water is available
- how they can best provide water services to their community in the future.

This collaborative research project will be led by the ISF and involve Brisbane City Council, Wagga Wagga City Council, Riverina Water County Council and the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

The project will build on a body of work developed by ISF and CSIRO for the Water Services Association of Australia (WSAA). This existing body of work includes:

- the *Guide to Demand Management*, a step-by-step guide to demand management in the broader context of urban water planning **(www.isf.uts.edu.au/whatwedo/water_IRP_projects.htm#dmguide)**
- the *Integrated Supply Demand Planning* (iSDP) model, a water demand forecasting and options model, currently used by a number of large utilities across Australia
- the *End Use and Demand Management Training Package*, training material on the iSDP model and broader best practice water planning.

These three components are all based on *Integrated Resource Planning* (IRP). This IRP approach was used to develop the International Demand Management Framework (IDMF) by ISF and international experts in 2005 (**www.isf.uts.edu.au/publications/turneretal2006idmf.pdf**) (see *Bulletin* 73, page 4), under the auspices of the International Water Association's Specialist Group, Efficient Operation and Management (**www.iwaom.org/index.php?name=taskforces)**

These IWA and WSAA resources will be used as the foundation for the new National Water Commission project which will:

- expand and enhance the suite of current resources and tools to enable them to be used by a broader national water industry audience and to deal with important emerging issues such as climate change
- investigate and document two major new case studies
- ensure maximum national water industry integration and benefit from the resources and tools developed by having a strong focus on knowledge sharing and capacity building.

A series of new resources and tools will be released gradually over the next 18 months and will be made available on the website (**www.urbanwaterirp.net.au**) as they are completed.

GreenPlumbing

Nomination forms for the GreenPlumber of the year award are now are available on the GreenPlumbers of Australia website (**www.greenplumbers.com.au**). The awards are to be held on 10 November 2008 in Melbourne. There is also a manufacturers' award.

The Master Plumbers and Mechanical Services Association of Australia's Green*Plumbers*® initiative offers a range of free national training programs including:

- determine water conservation measures
- develop water efficient technology measures
- principles of urban irrigation.

This program has recently been expanded into New Zealand and North America (**www.greenplumbersusa.com**) where the conservation partners include the Alliance for Water Efficiency and the EPA Watersense program.

To see the scale of the operation visit www.greenplumbers.com

AMR for NYC

After piloting two automatic meter reading (AMR) technologies in parts of Brooklyn and Manhattan last summer New York City has awarded a $68 million contract to acquire advanced AMR.

This will improve customer services for its approximately 831,000 metered points serving nearly eight million people in New York City. The new AMR technology will be able to send accurate readings to a computerized billing system up to four times a day and will largely eliminate the need for estimated bills.

It will also provide the ability to move towards monthly billing, and it will offer improved water consumption data, which will aid water conservation and system planning initiatives.

Ultimately, AMR will also provide customers with a system that offers an early warning notice of potentially expensive leaks before they become a problem.

Visit www.nyc.gov for details.

Buy a Hughie

The 'Hughie Sink' is the overall winner of the first national awards recognising Australia's outstanding water saving products or services. It is a simple moulded plastic sink insert that fits into an average sink to collect water used to clean hands, wash vegetables or kitchenware so that the water can then be easily re-used for pot plants or the garden, instead of going down the drain. The expert panel selected it for its marketability. It holds up to seven litres of water and costs around $25. To see the sink visit **www.smartwatermark.org**

Wok a saving

Yarra Valley Water in Australia is now offering a $1,000 rebate to businesses that install an innovative waterless wok instead of the traditional water guzzling wok. This is the result of an extensive trial program run by Yarra Valley Water and has already helped two Asian restaurants save a combined two million litres of water per year by simply replacing wok stoves with new '*waterless*' technology.

Visit www.yvw.com.au for details.

Tariff trial workshop

The second Environment Agency/ WaterUK *Tariff Trial Workshop* is being held at Queen Anne's Gate, London on 3 December 2008.

The workshop will focus on the use of tariffs in the UK water industry and is aimed at key stakeholders, including representatives from the water companies, regulatory bodies, consumer groups and advisory bodies.

The objectives are to share information and experiences as well as promote the implementation of tariffs that benefit the industry, customers and environment.

The discussion areas to be covered at the workshop are:

- smart meters – understanding the opportunities and barriers to tariffs
- energy – learning the lessons of the energy industry's use of tariffs
- vulnerable customers – how can tariffs best protect them?

For further details contact victoria.hallatt@environment-agency.gov.uk

Reflections

WDM – an increasingly global issue

A clear theme in the 91st issue of the *Demand Management Bulletin* is the international importance of water demand management.

While the environmental impacts of over-abstraction can be specific and local water resources are being put under pressure by global problems, global trade is allowing the transfer of huge volumes of water '*embedded*' in products.

The unavoidable impacts of climate change are highlighted in the Intergovernmental Panel on Climate Change (IPCC) report on *Climate Change and Water* (page 3), which points to the negative impacts of climate change outweighing the positive impacts on freshwater systems.

It also stresses that adaptation options require integrated demand-side and supply-side strategies. It's good to see an organisation as authoritative as the IPCC re-enforcing this message.

The recent WWF report *UK Water Footprint: the Impact of the UK's Food and Fibre Consumption on Global Water Resources* (page 3) found that 62 per cent of the UK water footprint on food is accounted for by water from outside the UK.

Combine this with the threat from climate change and questions are raised over the sustainability of importing this embedded water. Are we exporting our environmental issues? If so, what will be the long term impact of this trend?

It is encouraging to see an increasingly active international focus on demand management. The most obvious example is the conclusion of Zaragoza's landmark water saving city project, coinciding with EXPO 2008, which attracted an enormous number of visitors from the international community.

It's not possible to quantify the effect that this event will have on people's perceptions of water and the way they choose to use it. But I think it will have a significant, positive impact on people's understanding of the importance of water and seed enthusiasm to use it wisely.

Expo 2008 was also the setting for a 'European Day' on water scarcity and drought where the follow up work to the report on the *Communication on Water Scarcity and Droughts* (page 5) was debated.

A key theme was that priority should be put on water savings and water efficiency measures before alternative resources are developed. Again, this sounds very encouraging and is consistent with the '*twin track*' approach.

The increasingly high profile and international reach of demand management is greatly appreciated, but talk is cheap. It is critical now that we ensure this good work is translated into actions and that momentum is not lost.

We must also ensure that we do not unwittingly export our problems, only to find that they come back to haunt us.

Jonathan Dennis

Diary

30 October – Water Efficiency in the Low Carbon Economy
To be held at the AirSpace Conference Centre in the Imperial War Museum at Duxford, Cambridgeshire. The fee is £95+VAT. **Visit www.waterwise.org.uk for details.**

26 to 27 November – The World and Business Summit
This Ethical Business Conference is at the Tower Bridge Hilton Hotel. **Visit www.ethicalcorp.com/water for details.**

27 to 28 November – Global water Efficiency Conference
GrandResort, Limassol, Cyprus. **Visit www.globalwaterefficiency.com for details.**

1 & 2 December – SBWWI Metering and Leakage Seminar
To be held in Coventry. **Visit www.sbwwi.co.uk for details.**

3 December – Tariff Trial Workshop
The second Environment Agency/Water UK workshop takes place in London. **Contact victoria.hallat@environment-agency.gov.uk for details.**

16 & 17 December – Water Footprint Summit
Supported by the European Water partnership, Waterwise and others there are presentations from many international companies. **Visit www.water-footprint.com/conference.agenda.asp for details.**

15-16 April – Waterwise Conference 2009 – Delivering Water Efficiency in the UK
The fourth Waterwise Water Efficiency Conference will take place at Keble College in Oxford, **Visit www.waterwise.org.uk for details.**

26-29 April – Water Loss 2009
There is a call for papers for this IWA conference which is to take place in Cape Town, South Africa. **For information visit www.waterloss2009.com**

25- 28 October 2009 – Efficient 2009
The 5th IWA Specialist Conference on Efficient Use and Management of Urban Water Supply Systems will take place in Sydney, Australia. **Details at www.efficient2009.com**

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