



# water demand management bulletin

## Water efficiency targets and commitments

The Institute for Public Policy Research is recommending a *Water Efficiency Commitment* (WEC) and introduction of water efficiency targets in *Every Drop Counts*, a document aimed at achieving greater water efficiency.

IPPR recommends that a WEC, outlined in table 1 and inspired by the *Energy Efficiency Commitment* (EEC), should begin in 2014.

Only water efficiency measures with an acceptable level of confidence in the water savings would be included in the scheme.

All water savings must be due to water companies who would have the freedom to meet the targets in any way they choose. Thus there is an expectation that companies work with other stakeholders to deliver water savings.

IPPR puts forward a number of proposals for *'progressing water metering'*.

This entails making it easier for water companies to apply 'water scarcity status' and that all stakeholders *'fully evaluate and clearly communicate the net benefits of introducing smart metering, and of the potential multi-utility smart metering, as a matter of urgency'*.

### Affordability benchmark

Government should fund a *'water affordability'* grant scheme, similar to the *'Warm Front'* scheme, as well as develop a *'water affordability benchmark'* in time for the next periodic review in 2009. This

should be in addition to promoting the take up of the existing vulnerable groups tariff and considering the design of innovative social tariffs.

The report adds that water companies and local authorities should have clear guidance on what they are expected to do under their duties (under the Water Act 2003) to conserve water.

*Continued on page 2*

## In this issue...

- 1 IPPR's water commitment
- 2 Stock Take
- 2 School lesson
- 3 Eco-homes, drought
- 4 WDM in Australia
- 5 Government responses
- 6 Retrofitting behaviour
- 7 World Water Week
- 8 Waterwise's Water Marque

Table 1 **Timeline for a *Water Efficiency Commitment***

#### Action from now to 2009

- the Government should commit to developing a national benchmark for per capita consumption of water. To inform this, the Government could encourage companies to develop their own company (or regional) pcc benchmarks
- the Government should commit to setting water efficiency targets for water companies, through a *Water Efficiency Commitment*. Water companies should be encouraged to meet these targets as part of their duty to further water conservation
- Government and other stakeholders should develop a water affordability benchmark and use this to identify a 'priority group' of low income and vulnerable households
- Government should identify how to most effectively disperse water efficiency advice and funding information
- Ofwat should set up a demand management unit to co-ordinate the development and administration of a WEC.

#### Action from 2009 to 2014

- water companies could start a formalised voluntary WEC
- there should be a joint review of the effectiveness of the voluntary approach to water efficiency targets with a view to mandating targets. This review should be conducted in a timely fashion so that mandatory targets could be set through the 2014 periodic review.

#### Action from 2014

- if recommended, water efficiency targets are placed on a statutory footing. The level and effectiveness of targets is fully reviewed every five years in line with the periodic review.

# Taking stock of sustainable homes

The Sustainable Development Commission has issued *Stock Take* to 'deliver improvements in existing housing'.

It lobbies for a Code for *Sustainable Buildings (Existing Housing)* setting a framework for the carbon emissions, water consumption and household waste reduction provisions for existing housing.

This Code could be integrated into existing and forthcoming policies such as the *Home Condition Report*, the *Decent Homes Standard*, the *Green Landlords Scheme* and the *Housing Market Renewal* and other publicly funded refurbishments, to ensure high standards.

The Commission found that:

- consumers need clear and consistent signals about policy directions and priorities in order to change behaviour
- the setting of statutory standards, through regulation with proper enforcement, is necessary to ensure that a minimum standard is being met by all actors in a market
- regulations should set minimum standards that are achievable by all, proportional, and clearly deliver on policy objectives.

## VAT change?

The report would like to see the equalising of VAT on refurbishment and new build to overcome the current distortion that encourages developers and home owners to demolish and replace homes instead of refurbishing existing buildings to high environmental standards.

It assesses that a 11-12 per cent VAT on both repair and new build would be revenue neutral.

The Commission also identified supply chain barriers for householders who would wish to install water efficient taps/toilets etc. Such products are not readily available at all retail outlets, and therefore householder awareness of them is low.

As bathrooms and kitchen are refurbished on average every 7-15

years there are regular opportunities for upgrading the resource efficiency of the appliances installed.

Metering is seen as the way forward and there is a need to encourage smart metering adding '*the results of the Kent demand management tariff trial should be widely disseminated. Government and water companies commit to reviewing the potential for implementing demand management tariffs in Periodic Review 2009*'.

## More radical

There are a number of more radical recommendations such as the establishment of a national water audit methodology (adopted by all water companies) ensuring the information is collated into a database.

The report would like to see social landlords ensure retrofitting/ refurbishment programmes, such as *Decent Homes*, include water efficient appliances and fittings.

It goes on to recommend that Waterwise provide advice to consumers and co-ordinate with the energy efficiency advice initiatives.

There is also a plea for further research, particularly a full cost benefit analysis to evaluate avoided environmental costs and benefits to householders in reduced bills.

Visit [www.sd-commission.org.uk/publications.php?id=400](http://www.sd-commission.org.uk/publications.php?id=400) to download the report and see all the water efficiency related recommendations.

## School lesson on water

CIRIA has published *Sustainable Water Management in Schools*, an initiative supported by Defra, DfES and the Environment Agency.

This guidance document sets out a cycle of audit, planning, action, managing and review. It provides benchmark water use figures for use by primary and secondary schools both with and without swimming pools.

It includes six water efficiency case studies including Chesswood Middle School in Worthing, St Leonards Middle School in Hastings (Bulletin 70, page 7) as well as Beaumont Community Primary School in Suffolk and Fernhill Primary School in Farnborough, the latter being finalists in the *2005 Environment Agency Water Efficiency Awards*.

The manual explains how to install rainwater harvesting systems including providing the necessary maintenance.

Sustainable drainage (SUDS) is also covered with illustrations from Matchborough First School in Redditch and Walsey Hills High School in Worcestershire.

There is a section that provides examples of how schools have linked sustainable water management with the national curriculum.

The guidance can be found at [www.london.gov.uk/mayor/strategies/sds/sustainable\\_design.jsp](http://www.london.gov.uk/mayor/strategies/sds/sustainable_design.jsp)

## Water efficiency commitment (continued from page 1)

Although the WEC and metering are headline recommendations the report also looks in depth at the potential for more water-efficient homes and improving domestic water efficiency as well as putting all this in the context of the 'twin track' approach to balancing supply and demand. It also includes background information including a

table setting out water companies water efficiency activity.

The project's advisory group included major water efficiency stakeholders, especially in the south and east of England.

The report, by Louise Every (with Julie Foley), can be downloaded via [www.ippr.org](http://www.ippr.org)

# Drought update

The underlying drought in the south and east of the country, combined with the hot and dry summer, has resulted in other issues coming to the fore.

The media has been giving a degree of attention to the idea of transferring water from the north and west to the south and east. The Environment Agency was then asked by the Government to produce a report *Do we need large-scale water transfers for south east England?*\*

Dr Leinster, the acting Environment Agency's Chief Executive said 'there was agreement between Government Ministers, regulators and the water companies that a national water grid was not needed and there were better solutions much closer to home.

*We need to make better use of the water we have. Water companies must tackle leakage, demand management and local resource development before thinking about transferring water from further away and spending people's money on questionable transfer schemes'.*

\*can be downloaded via [www.environment-agency.gov.uk/subjects/waterres/](http://www.environment-agency.gov.uk/subjects/waterres/)

## Mapping the drought

The Environment Agency has also issued a map showing the full impact the drought is having on the environment showing the impact is not confined to the south east.

The RSPB, with the support of Waterwise as well as a host of wildlife conservation organisations has issued *Dry Rot: Is England's Countryside Dying of Thirst?*\* that publicises how the drought is affecting woodlands, heathland, moorland and blanket bogs as well as birds, fish, mammals, insects and plant life.

The report concludes 'by using water efficiently in our homes, tackling leakage, reversing historical patterns of drainage and reducing pollution, we have the opportunity to give wildlife a fighting chance in a drying world'.

\*Dry Rot can be downloaded from [www.rspb.org.uk](http://www.rspb.org.uk)

## No further bans

The Environment Agency has stated that no further bans are likely this year, but warned that 'the drought has had a large impact on the environment already this summer. A return to warm, dry weather may cause further environmental problems'.

To check on the latest drought situation visit the Agency website at [www.environment-agency.gov.uk/drought](http://www.environment-agency.gov.uk/drought)

## Thames reservoir

Thames Water's plan for the first new reservoir for a generation near Abingdon in Oxfordshire became clearer in September. They opened local exhibitions in Abingdon, Steventon, East Hanney and Wantage and expressed a keenness to hear the public's views.

At the same time Thames Water announced the withdrawal of its application to Defra for a drought order for London.

It cited the rain in May and August as well as much reduced water use by customers that was estimated at eight per cent below that expected.

However, the company warned that the drought was far from over.

## EcoHomes for existing home

BRE, in collaboration with the Housing Corporation, has launched EcoHomes XB for use in existing homes.

It is described as 'a sophisticated yet simple tool designed to assist landlords such as housing associations and local authorities in planning, and measuring the benefit of improvement works to their housing stock and aiding the overall environmental performance'.

A single credit is awarded for each of the following on water use:

- toilet flush of 6 litres
- composting toilet
- taps with flow regulators or aerating taps or shut off taps
- shower flow rate of 9 litres/minute
- standard or small bath
- best practice washing machine
- best practice dishwasher
- grey water re-cycling
- mains water meter.

For external use a credit is given for 'having a system that will collect rainwater for the use of watering gardens and landscaped areas, eg water butts, central rainwater collection systems etc'.

The guidance manual, that defines bath sizes and best practice appliances, can be downloaded from [www.bre.co.uk/ecohomes](http://www.bre.co.uk/ecohomes)

## HIP backtrack

The government has bowed to pressure over concerns about the readiness of the property sector and will now phase in Home Information Packs.

The packs will be introduced in June 2007 prioritising energy information but 'introducing the rest of Home Condition Reports on a market led basis in the first instance'.

## Golfing climate

The Tyndal Centre has published *Sustainable Water Resources: A Framework for Assessing Adaption Options in the Rural Sector* that assesses how the irrigated agriculture and turf grass leisure sectors in England could adapt to climate change impacts on water resources.

Of particular interest is the results of a national survey of golf course irrigation

use where 400 out of 2,140 courses approached replied.

The report concludes that under a free trading water market, golf courses are likely to outbid farmers. Under conditions of reduced water availability many courses would be able to adapt by restricting irrigation to greens and tees.

There is the potential for investments in winter reservoirs, water re-use and water harvesting.

The report can be downloaded via [www.tyndall.ac.uk/publications/tech\\_reports/](http://www.tyndall.ac.uk/publications/tech_reports/)

	all	some	none
Tees	60%	19%	20%
Greens	99%	1%	0%
Approaches	26%	29%	55%
Fairway	8%	10%	82%

# WDM down under

The Institute for Sustainable Futures (ISF) at the University of Technology, Sydney in Australia has been at the forefront of applied research in demand management in Australia and internationally for many years. Its work has influenced many major urban water planning decisions across the country. Research Principal, Andrea Turner, and Director, Stuart White, outline some of ISF's recent work within the context WDM development in Australia.

Australia is the driest continent and has highly variable rainfall, therefore WDM and effective usage of limited resources is critical, especially with population growth and the risk of climate change reducing supply reliability.

WDM has played a role in urban water management in Australia for many years. Metering and 'user pays pricing' is now universal. Incentive programs in the residential and non residential sectors have been implemented since the mid 1990s, with an early example in the mining town of Kalgoorlie Boulder, where over half of households participated in residential retrofits\*.

Education and communication-based WDM programs are implemented in virtually all major urban centres.

National regulations such as mandatory water efficiency labelling of water using devices (e.g. toilets, washing machines, showers) are now in place. State level regulations (i.e. BASIX, see Bulletin 69, page 7, in New South Wales, which regulates water efficiency and requires increased water efficiency in new and refurbished houses) are now being investigated by several States and Territories.

This combination of measures and instruments (educative, economic and regulatory) for all sectors and for both existing and new properties is crucial if WDM is to be effective.

The recent drought has left dams at critically low levels. The commitment by many State Governments to achieve specified WDM related targets means that WDM now needs to play a leading role in both short and long term urban water planning.

Whilst there have been many positive steps that 'look good on paper', some of these need to go further, including the

mandating of appliance efficiency rather than just applying labels.

More investment in structural changes in efficiency, such as retrofitting, rebates or incentives for non residential efficiency, pressure management and losses control is required as well as changes in consumer behaviour.

In Australia, especially with the recent imposition of various levels of restrictions there is a growing perception that 'DM has been done'.

Some utilities and State Governments are not fully committing to WDM even though targets are in place, and are instead hoping to maintain the demand reduction achieved through water use restrictions.

Some are turning first to more expensive and resource intensive options such as desalination, inter-basin transfers, large scale reuse and rainwater and greywater system rebates, overlooking the significant water conservation potential that is available.

## Critical junction

WDM needs to be taken seriously at this critical juncture. This will need to include the level of investment in WDM, full integration of WDM into water planning decision-making, development of staff to run WDM programs, knowledge sharing and measurement/evaluation of WDM programs to achieve improvement\*. This is essential if the most economic, socially and environmentally appropriate solutions are to be taken forward.

Much of the work undertaken by ISF shows how WDM can play a leading role in water planning, in combination with other solutions appropriate to the region in question such as in the case of Canberra\*.

For example a review of the Sydney Metropolitan Water Plan\* earlier this year identified significant opportunities for the extension of investment in the already extensive WDM program being implemented.

The extended WDM program covers the residential and non residential sectors as well as a leakage program ensuring the inspection of the city's whole water network (that serves 4.2 million people) every year. This has been combined with the use of supply-side options, the emergency use of ground water reserves, accessing deep water storage and large-scale reuse.

These options have enabled the pre-emptive investment in a highly contentious desalination plant of over £400 million to be avoided.

This commitment in Sydney to WDM has been undertaken based on a history of the use of integrated resource planning (IRP)\*. IRP is where the supply-demand balance in a region is assessed using sector and end use based analysis (micro component analysis). A broad suite of demand and supply-side options are developed and then assessed using consistent economic analysis and sustainability assessment methods.

This is then used to determine the most appropriate way to fill the supply demand gap. The largest residential program in Australia, the Sydney Water Corporation *Every Drop Counts Residential Retrofit Program*, was developed and assessed using the IRP framework and has now been implemented in over 300,000 (a fifth of all) households in Sydney since 2000.

Monitoring and evaluation of implemented WDM programs in terms of participation rates, customer satisfaction, costs and measured water savings are a critical part of the IRP process. The Sydney Retrofit Program is one of the very few WDM programs to have been evaluated using robust statistical analysis methods and has been found to save 21m<sup>3</sup> per household each year\*.

Further research is currently being undertaken by ISF on monitoring and evaluation, including the energy savings associated with the Sydney Retrofit Program to assist in measuring greenhouse gas benefits.

ISF researchers have been engaged by the utility industry organisation, the Water Services Association of Australia (WSAA) to develop an Australian Integrated Resource Planning Framework and Manual, which will be released later in 2006.

This will provide guidance and case study examples for water service providers on how to undertake IRP in their area and integrate IRP principles in their water planning decision-making processes.

This manual will update the previous WSAA DM Manual\*. It will also complement other tools, including an IRP Training Package\* and an integrated supply demand planning (iSDP) model currently being used to assist in urban water planning in major cities across Australia (i.e. Sydney, Melbourne, Canberra and Perth).

## IDM framework

These tools and resources will eventually assist in the development of an International Demand Management Framework, which is being auspiced by the International Water Association's (IWA) Task Force No. 7.

Task Force No.7 is being co-ordinated jointly by ISF and Canal de Isabel II (the Madrid water company) under the banner of the IWA Specialist Group Efficient Operation and Management (refer to *Bulletin 73*, page 4, and [www.iwaom.org](http://www.iwaom.org) for details).

**\*references for these items are given on the version of the article on [www.environment-agency.gov.uk/subjects/waterres/bulletins/](http://www.environment-agency.gov.uk/subjects/waterres/bulletins/)**

## Product summary

Defra have published a summary of the responses to the possibility of establishing an organisation for sustainable products.

The generally positive feedback means that Defra will be submitting final proposals to ministers and produce a consultation by the end of the year incorporating a wider product policy.

Visit [www.defra.gov.uk/corporate/consult/sustainable-products/index.htm](http://www.defra.gov.uk/corporate/consult/sustainable-products/index.htm) for details.

# Government responses

The Government responded to the *House of Commons Environmental Audit Committee Report on Sustainable Housing (Bulletin 77, page 2)*. There is a tone of agreement but much depends on the final outcome on the revised *Building Regulations and the Code for Sustainable Homes*.

It is apparent that the Government is reluctant to move on fiscal incentives, an area where the Treasury has a key influence.

On reducing Stamp Duty to homes built to high environmental standards the Government states *'more than 80 per cent of homebuyer's are either exempt from Stamp Duty or pay only one per cent tax rate. This limits the scope for meaningful incentives for a large majority of buyers and would have little impact on affordability'*.

There seems little prospect of reducing VAT for homes both new build and refurbished homes as *'our flexibility to introduce reduced or zero rates of VAT are governed by long-standing agreements with our European partners'*.

The response can be found at [www.communities.gov.uk/index.asp?id=1002882&pressnoticeID=2203](http://www.communities.gov.uk/index.asp?id=1002882&pressnoticeID=2203)

Hot on the heels came the Government's response to the Water Management Report (*Bulletin 78, page 1*) that reiterates the policy over Stamp Duty.

The Government also explains why it cannot add water efficient agricultural equipment to the Enhanced Capital Allowance Scheme.

The response on water efficiency leans heavily on the Market Transformation Programme and, further down the road, the feasibility of a voluntary labelling scheme.

Can be downloaded from [www.parliament.uk/documents/upload/govresp14aug.pdf](http://www.parliament.uk/documents/upload/govresp14aug.pdf)

## Behaviour change research

Understanding customer behaviour is seen as a vital ingredient in the successful application of water efficiency.

Customer behaviour is also interesting other environmental sectors. As part of their *Behaviour Change Research programme*, Defra have issued a discussion paper *Promoting Pro-Environmental Behaviour*.

It sets out the research programme which includes reports on sustainable resource use in the home, triggering widespread adoption of sustainable behaviour and sustainable resource use in business and organisations.

Details can be found at [www.sustainable-development.gov.uk/government/task-forces/behaviour-change.htm#research](http://www.sustainable-development.gov.uk/government/task-forces/behaviour-change.htm#research)

## UKIA on credit

The UK Irrigation Association (UKIA) is always positive when it comes to efficient irrigation as a couple of items in the June newsletter confirms. Cranfield University is carrying out a project in collaboration with the Environment Agency and the East of England Development Agency, to evaluate a range of on-farm water efficiency measures. UKIA is also running an autumn field trip to Bari in Italy to investigate an Italian scheme whereby farmers pay for water by credit card. Each farmer is issued with a card which they insert into their hydrant and draw the amount they need by dialing in the quantity. Once they reach their limit they can buy more water from other farmers if it is available.

The newsletter can be downloaded from [www.ukia.co.uk](http://www.ukia.co.uk) and the similarly informative Farm Water Bulletin can be obtained via [www.mills-reeve.com](http://www.mills-reeve.com)

# Retrofitting behaviour

The Environment Agency has published *Marketing Strategies to Promote Retrofitting Behaviour* that looks at water efficiency and waste minimisation.

The contractor, The Social Marketing Practice, have identified 'key factors required to encourage successful uptake of retrofit measures by householders to make their homes more environmentally efficiency'. A summary is shown in table 3.

Included in the 'water efficiency intervention priorities' are:

- policies to increase the rate of introduction of water meters to homes
- incentives (e.g. reduction in water rates or structured tariff systems) for consumers who retrofit a specified range of measures
- provision of audit and installation support programmes by water companies
- training of household plumbers to convey practical messages to

householders in the course of their work

- attitude and awareness research of consumers
- information provision regarding benefits of water meters, urgency of saving water and retrofit measures
- explore the use of local community network initiatives to recruit householders
- ensure that revisions to Water Fitting Regulations, addressing new build, incorporate water efficiency product specifications (to demonstrate policy leadership to householders)
- build synergy between measures to encourage good water efficiency behaviours at work and at home (transferability of behaviours).

\*can be downloaded via [www.environment-agency.gov.uk/](http://www.environment-agency.gov.uk/)

Table 3 Key learnings for householder retrofit behaviour change

- the best way to change behaviour is through communities and special interest groups, where positive behaviour can be encouraged by social pressure and conversations and where unsustainable behaviour is discouraged
- providing practical 'on-the-ground' support for behaviour change, tailored to specific audiences and localities is more effective than raising awareness. Here support and information are crucial to enable the behaviour change and develop it sustainably within the community
- providing a combination of prolonged support, coupled to a convenient system and community participation, a significant and sustainable behaviour change can be influenced
- convenient infrastructure should be in place before engaging to encourage action. However, there may be a need to 'warm up' the audience as infrastructure is coming on line
- incentives can reflect the shared social responsibility of householders and others and are important where behaviour is not a social norm and convenience is compromised. They are considered essential to encourage early adopters and to build presence of pro-environmental behaviour in the community.

## MTP's evidence base

For those who do not wish to search through the whole Market Transformation Programme's website might find it easier to download *Sustainable Products '06: Policy Analysis and Projections* that provides a 'snapshot of the evidence base at 31 March 2006'.

The water section includes work on WCs, taps, showers, baths, dishwashers, washing machines and washer driers.

For each category it gives the savings potential, product characteristics, recent policy actions and proposed actions.

Water consumption projections are given for each as portrayed in the example of showers, the only one to show an increase under all scenarios.

The report can be downloaded via [www.mtprog.com/publications.aspx](http://www.mtprog.com/publications.aspx)

## Portsmouth test taps

Portsmouth Water has regularly sent us their *Water Efficiency Studies* report. The latest updates us on their water efficiency studies and gives guidance on how water efficiency products work in practice, whilst providing feedback from users.

Of particular interest is the trialling of metric tap inserts. Tapmagic and Neoperl PCA Cascade devices were inserted in taps at their headquarters.

The study found neither device blocked due to hard water deposits although periodic checking for debris may be necessary. The company considers they give suitable flows for hand washing but not for kitchen taps.

In 2006/07 the company say they will be trialling a Mecon retro-fit dual flush toilet device.

Contact Paul Sansby on tel: 023 9224 9329 for details.

## Leakage review

At the end of July, giving only a month for responses, Ofwat issued a letter to all water utilities asking for 'preliminary' views on reviewing leakage targets. The 2002 *Tripartite Leakage Study* helped formulated the current 'Economic Level of Leakage' (ELL) approach. It also suggests the possible use of a suite of key performance indicators (KPIs) for leakage management that were not taken up at the time. Comments on leakage in the recent House of Lords' *Water Management Report* appeared to help galvanise this activity which needs to be carried out quickly if it is to be applied in the 2009 Periodic Review. Further opportunities to comment are promised.

The letter (RD 11/06) can be downloaded from [www.ofwat.gov.uk](http://www.ofwat.gov.uk)

## Enviowise

Enviowise used the drought to launch its 'Water at Work Week' with the theme of the 'Underwater Office'. You can download the accompanying video at [www.enviowise.gov.uk/page.aspx?o=203813](http://www.enviowise.gov.uk/page.aspx?o=203813)

## SWEL results

The Environment Agency's SWEL (Sustainable Water Environment in Lancashire) Newsletter reports that the programme met its target of advising 45 companies on water management issues and that 68,500m<sup>3</sup> of water were saved through waste minimisation schemes.

Visit [www.swel.org.uk](http://www.swel.org.uk) for details.

# World Water Week Water Warnings

## The growing world-wide pressures on water were given major publicity at the World Water Week in Stockholm during August.

International Water Management Institute issued *Water for Food, Water for Life: Insights from the Comprehensive Assessment of Water Management in Agriculture* ([www.iwmi.cgiar.org](http://www.iwmi.cgiar.org)) stating that 'there is sufficient land, water and human capacity to end hunger and protect the environment over the next 50 years if radical action is taken'.

Whilst this report concentrated on agricultural water inefficiency in developing countries, WWF's *Rich Countries, Poor Water* ([www.panda.org](http://www.panda.org)) made the point that many of the rich nations were now running short of water. The report gives in depth information about Australia, USA and Spain.

Table 4, taken from the report, contains a table of virtual water content of both agricultural and non-agricultural products as a reminder to consumers how vast quantities of water are both exported and imported across the world.

At the conference, Anders Berntell of the hosts, the Stockholm International water

Institute, said that 'it is necessary that we raise awareness that food requires a lot of water' adding 'some kind of labelling of food products when it comes to their water requirements could be a first step'.

Table 4 Global average virtual water content of selected products

Product	litres
glass of beer (250ml)	75
glass of milk (200ml)	200
glass of wine (125ml)	120
glass of apple juice (125ml)	190
cup of coffee (125ml)	140
cup of tea (125ml)	35
slice of bread (30g)	40
slice of bread (30g) with cheese (10g)	90
potato (100g)	25
bag of potato crisps (200g)	185
egg (40g)	135
hamburger (150g)	2400
cotton T-shirt (medium, 500g)	4100
sheet A4 paper (80g/m <sup>2</sup> )	10
pair of shoes (bovine leather)	8000
microchip (2g)	32

For full coverage of World Water Week visit [www.worldwaterweek.org/](http://www.worldwaterweek.org/)

## WBCSD scenarios

Surveys repeatedly suggest that it is still a minority of businesses that are

properly addressing water efficiency.

Therefore it is good to see The World Business Council for Sustainable Development taking a lead. The WBCSD includes member companies such as Coca-Cola, Shell, Severn Trent Water, Unilever and Procter & Gamble who have developed a set of scenarios to assess and evaluate business strategies in the light of future water shortages. 200 participants were consulted over the two years it took to compile the very glossy and wonderfully illustrated report, *Business in the World of Water\**.

A number of strong messages come through including:

- businesses cannot survive in a society that thirsts
- you do not have to be in the water business to have a water crisis
- business is part of the solution, and its potential is driven by its engagement
- growing water issues and complexity will drive up costs.

\*this report and the earlier *Water Facts & Trends* and *Collaborative Actions for Sustainable Water Management* can be downloaded from [www.wbcd.org/web/h20scenarios.htm](http://www.wbcd.org/web/h20scenarios.htm)

## No to reuse

Toowoomba in Australia was the recent centre of attention when the residents took part in a referendum with 62 per cent of the community voting against using recycled waste water in their drinking water. When reporting this the Australian Water Association said 'intense media interest continues. Although that is a disappointing result for most water practitioners, the associated level of debate has been a positive; and clearly refuting the misinformation spread by the 'no' campaigners is a priority'. The plot thickened when ABC Online reported that the Local Government Association had referred allegations of inappropriate phone polling to the Crime and Misconduct Commission.

The website [www.toowoombawater.com.au/who-else-is-doing-this-/planned-indirect-potable-reuse.html](http://www.toowoombawater.com.au/who-else-is-doing-this-/planned-indirect-potable-reuse.html) contains a wealth of international information on water reuse.

## Drought down under

Queensland Premier, Peter Beattie, declared a water supply emergency in the south east of Queensland in early August. This includes a host of water resource, demand management, recycling and leakage control measures.

South East Queensland's water use has fallen from 955 Ml/d last July to 690 Ml/d this July since the regional drought strategy was launched by local councils.

Applications with a value of A\$50,000 are being received daily for rebates on water saving devices as part of the *Home WaterWise Rebate* scheme.

As part of this scheme, a call centre has been created employing ten people with 70 people working installing devices.

## Dry in Melbourne

The situation does not look good in Melbourne after one of the driest winters in years. Melbourne's main reservoir storage at 46.8 per cent of capacity has triggered stage one restrictions at the beginning of September with spring and summer still to come.

## Sydney meter trial

Sydney Water are trialling individual water meters in three apartment blocks to encourage customers to save water. One will use a data logger with the facility send meter data over the internet.

## Saudi Arabian kits

Arab News reported that, during the fourth phase of a national campaign to promote the prudent use of water, the government is issuing five million water conservation kits to households, government departments and private industry.

# Waterwise on the Marque

Waterwise has launched a water efficiency Marque which will be awarded to products highlighting water efficiency or reduced water wastage. A manufacturer can use the *Waterwise Marque* to provide clear point of sale information to the buyer. Bathroom, kitchen, white goods manufacturers, outdoor water using product manufacturers and others are all encouraged to apply. A select handful of *Waterwise Marques* will be awarded each year. Entries will be judged by a panel of experts and assessed on the whether the device promotes water efficiency, potential market reach, performance and good design. Winners of the *Waterwise Marque* will be invited to and formally recognised at the Waterwise Annual conference Dinner on Thursday 22 March 2007. For more information on applying for a Waterwise Marque, simply visit [www.waterwise.org.uk](http://www.waterwise.org.uk) Alternatively contact [info@waterwise.org.uk](mailto:info@waterwise.org.uk)



## Reflections

Targets help to focus effort on activities that otherwise would be overlooked. Leakage targets for water companies are a good example of this and the fact that initially these were set on a pragmatic basis is significant.

Once the 'quick wins' were achieved and costs began to mount then economic and social impacts had to be considered more rigorously, hence the advent of economic levels of leakage. Views as to whether this method remains durable into the future are to be considered by Ofwat (page 6).

In some ways the reverse has happened with the amount of water consumed. There has been a general assumption that declining non-household water use would continue to offset any increase in the household sector. That, coupled with decades of sufficient water resources has meant the duty to promote water efficiency to customers has not always been vigorously pursued; at present saving less than  $\frac{3}{4}$  litre per property on average (IPPR, page 1).

Logic suggests that the scarcity of water resources in some areas would now shift the justification for greater effort in fulfilling this duty. Add to this public expectation – '*I will, if you will*' is a view emerging from research into consumer behaviour in response to water shortages – and the argument becomes more compelling.

A first step would be to improve the quality of the consumption data that could be used for benchmarking consumption regionally.

In addition to the proposed actions to introduce benchmarks, targets and a *water efficiency commitment* (page 1) IPPR examined some of the implications of widespread metering.

They put forward an option to extend the *Vulnerable Groups Scheme* as an interim measure until volume-based charges become the norm. This summer the Agency hardened its stance in respect of household metering, calling for all households in large parts of the water scarce south east to be compulsorily metered.

Such a policy promoted solely on environmental grounds is likely to have limited success. Social and economic justification and safeguards are equally important when changing from a little over one quarter of households metered currently to universal metering in some areas.

Considerable uncertainty exists as to how universal metering might impact on customer bills, particularly those least able to pay. But how inequitable is the currently system of charging, both now and in future?

Information covering the number of vulnerable households affected by any extension of the Scheme, where they are and the size of any incidence effect needs to be clearly understood against the current backdrop.

Given the Agency's continued support for metering and its sustainable development duty I believe such interest is justified and essential for reasoned, well founded policy.

Rob Westcott

## Diary

### 17 October 2006 – Precious Water – Water Pressures

The Bathroom Manufacturers Association inaugural bathroom conference is to take place at the Marriott St Pierre Hotel & Country Club in Chepstow. Details from [linda.williams@bathroom-association.org.uk](mailto:linda.williams@bathroom-association.org.uk)

### 22 November 2006 – Farming, Water & the Environment

This CIWEM London conference covers all aspects of farming but will include water use and irrigation. Details at [www.ciwem.org/events](http://www.ciwem.org/events)

### 29-30 November 2006 – SBWWI Leakage Seminar

ELL or Zero Tolerance? is to be held at Scarman House, Warwick University, details at [www.sbwwi.co.uk](http://www.sbwwi.co.uk)

### 27 February 2007 – Drought

CIWEM are holding this very topical conference in London.

Details Email: [bob.earll@coastms.co.uk](mailto:bob.earll@coastms.co.uk)  
Tel: 01531 890415

### 21/22 March 2007 – Waterwise's Water Efficiency Conference

The second annual conference is being held on World Water Day at the Lady Margaret Hall in Oxford with the theme *Saving Water in the Natural and Built Environment*. Sponsorship opportunities are available. There will be a dinner for delegates on 21 March. Email: [info@waterwise.org.uk](mailto:info@waterwise.org.uk) for details.

### 20-23 May 2007 – Efficient 2007

IWA's *Efficient 2007* is to be held on Jeju Island in Korea. Abstracts submission by 15 October 2006. For general information visit [www.iwaoHQ.org](http://www.iwaoHQ.org) and details at [www.efficient2007.com](http://www.efficient2007.com)

### 23-26 September 2007 – Water Loss 2007

IWA's *Loss 2007* is to be held in Bucharest, Romania. Abstracts submission by 15 November 2006. For general information visit [www.iwaoHQ.org](http://www.iwaoHQ.org) and details at [www.waterloss2007.com](http://www.waterloss2007.com)

Contact the **HELP DESK** by email: [savewater@environment-agency.gov.uk](mailto:savewater@environment-agency.gov.uk) or telephone +44 (0) 1903 832275. Bulletin articles are posted on the Environment Agency's website and are text searchable. Visit [www.environment-agency.gov.uk/savewater](http://www.environment-agency.gov.uk/savewater) for more information. Editor: Philip Turton, email: [philip.turton@environment-agency.gov.uk](mailto:philip.turton@environment-agency.gov.uk)