

by DAVID KING, the Environment Agency's Director of Water Management

At the time of writing, it's a dank, dismal day and the need to save water will be far from many people's minds.

The full cost of the recent floods is not yet known, but we do know that, tragically, people lost their lives and thousands of homes in the North East, the Midlands and East Anglia have been ruined.

In the flood-hit areas, Environment Agency staff have been busy supporting the massive clean-up operation by advising on the disposal of waste, controlling and treating pollution, and checking and repairing flood defences. In other areas of the EA's operations it's business as usual, as we continue to monitor river levels and rain gauges so that, together with the Met Office, we can forecast possible flooded areas and warn the public.

Meanwhile, we have called for a more integrated approach to tackling urban flooding – that unpleasant mix of water from sewers, rivers, groundwater and intense rain run-off from roads, roofs and land.

Five times as many homes and businesses were inundated by overflowing drains, sewers and run-off as were swamped by swollen rivers in the June floods.

Responsibility for managing the sources of water that contribute to urban flooding is currently divided between a number of organisations, including water companies and local authorities. We also have a small role to play in advising local planning authorities on the disposal of surface water from new development.

The problem of urban flooding, however, will increase as development pressures and the impacts of climate change – such as boom-and-bust rainfall patterns – intensify and existing infrastructure ages. We pressingly need a more proactive approach to handling the problem.

So what's the answer? We believe that urban flooding can be most effectively managed by key stakeholders working together to common standards. Longerterm strategic planning of drainage infrastructure that takes account of climate change, considers sustainable solutions such as green roofs and permeable paving, and sets out responses of the different organisations involved will also be a key mechanism. That's why we are committed to playing our part in the Department of Environment, Food and Rural Affairs (Defra)-led urban drainage pilot schemes over the forthcoming months.

Meanwhile, we believe that local authorities are best placed to co-ordinate the production of these new plans, while the Environment Agency is best placed to contribute to their production and ensure that they are fit for purpose down the years.

What a difference 12 months make. Only last summer, after two dry winters on the trot and temperatures topping 30 deg C in July, drought was the headline-grabber. Now, after a run of months of recordbreaking rainfall, seriously depleted groundwater levels and dried-up rivers and reservoirs have recovered.

So can concerns about future water resources really remain? The answer is yes.

In fact, long-term plans for managing demand for water will be as important as measures to protect our homes from flooding as we look to adapt to our global warming-affected world. Water efficiency will also become increasingly important as pressures for housing growth, particularly across the South East, intensify.

But what sort of plans and actions? The evidence shows that metering can cut domestic water use by between 10 and 15% but, in isolation, this is not the answer to all our water supply issues.

Promisingly, central to the Government's recent housing announcements was the Code for Sustainable Homes. This provides a voluntary national standard to encourage designers, developers and builders to create more climate-proof building.

Since 1 April all new, publicly funded housing has to be built to Code Level 3. To meet this level, houses must be designed so that each person uses a maximum 105 litres of water a day in the home. This will require the installation of water-efficient fixtures and fittings such as lowflush toilets, low-flow taps and showers. While compliance with the Code is not compulsory for private housing, it is good to see that it will be mandatory for all new homes to have code assessments for water efficiency by April 2008.

The Code is also intended to help shape the future direction of Building Regulations, especially for energy use, and we hope it will do the same for water. The Government has consulted on bringing water efficiency into Building Regulations and we welcome the 125 litres-per-head-per-day water performance standard for new homes. That standard is nearly a 20% improvement on the current average level of water use.

But the Government's toughest challenge is to modify existing housing to meet the challenge of climate change – making homes not just energy efficient but water efficient too. Across the South East, the increase in demand from new developments by 2015 is expected to reach around 160 megalitres a day. Yet the EA's recently-released report *Water Efficiency in the South East of England – Retrofitting Existing Homes* shows that as much as 50% of extra demand for water could be met by making existing housing more water efficient. But how can we do that?

Well, we have been working closely with the Government to progress proposals for advancing compulsory metering in seriously water-stressed areas – places such as the South East where water abstraction is already close to, or above, acceptable limits. In addition to metering, we also believe that the Code should be broadened to cover every building – domestic and commercial; old and new – and the upgrading of existing buildings at resale or during refurbishment is the best way forward.

That would quickly lower the cost of water-efficient technology as the increasing demand drives prices down. We have also been assessing the feasibility of linking Code levels to water stress and want to see the Government take forward proposals for revising the *Water Fittings Regulations*.

This would discourage retrofitting with gadgets that look good but use more water.

However, it is the major new developments, especially the Eco Towns, that provide an opportunity to think more creatively about sustainable water use. In fact, we are currently leading a study, in partnership with the Department for Communities and Local Government and Defra, to examine the feasibility of moving towards water neutrality – where total demand for water postdevelopment is the same or less than pre-development – in the Thames Gateway.

That study is due to be completed later this year and its findings should present many valuable lessons. Meanwhile, we are also currently consulting on ways to improve water resources management over the next 25 years and beyond and this will help shape our new Water Resources Strategy, which is due out in December 2008.

Finally, we would like to see the Government examine ways – such as financial incentives – to encourage householders in water-stressed areas to choose more waterefficient products and appliances. Together with regulator Ofwat, the Consumer Council for Water, and Waterwise, we are developing a joint proposal for the Water-Saving Group to encourage a wider commitment to saving water and the use of water-efficient products and appliances.

To download the report Water Efficiency in the South East of England – Retrofitting Existing Homes and ways to save water, visit [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk).