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## **DEFRA'S STRATEGIC POLICY STATEMENT TO OFWAT – ADAPTATION PERSPECTIVE**

Dear Richard,

I am writing in relation to the draft *Defra Strategic Policy Statement to Ofwat*. You may be aware that the Adaptation Sub-Committee has provided advice to Defra on adapting to the risks of water scarcity from climate change in our 2011 and 2012 Progress Reports. This letter sets out some of this work where it is particularly relevant to the Ofwat guidance.

### **Risks from Climate Change**

Currently, around 15 billion litres of water are abstracted for public water supply in England daily. The UK Climate Change Risk Assessment identified national water supply-demand deficits as a significant risk, driven by growth in population as well as climate change. There is a large range of uncertainty in the projections, ranging from a negligible deficit to over 3 billion litres per day (a fifth of total current demand) for the period 2010-2039, and between 300 million litres and 6.5 billion litres by the 2050s. Considering long-term climate change is therefore important for ensuring that plans are put in place early enough to respond adequately to the range of risks, both those in the near term and those that may materialise in the 2050s and beyond.

### **Demand Management**

Managing demand for water is about both reducing unnecessary consumption, and making consumption more responsive to changes in supply. Demand management is a low-regret strategy in that:

- it provides benefits today and against any future deficit;
- defers the need for costly infrastructure investments, and
- provides co-benefits for the natural environment and reduced energy to heat water in the home.

**It is particularly useful therefore that the draft strategy emphasises the need for water companies to explore options for demand management thoroughly, and to show that projected reductions in demand are insufficient or unjustified in terms of cost in order to**

## **justify development of new supply side measures.**

Our analysis shows that reducing average consumption per person to 130 litres/day by 2035 is readily achievable through uptake of water efficiency measures, metering and pricing of water to reflect its availability. This alone could save around 700 million litres of water a day, which would reduce the projected supply-demand deficit by a quarter to a half by the 2020s, on the basis of the projections laid out in the Climate Change Risk Assessment. We found that further reductions down to 115 litres/day could be cost-effective through end-of-life upgrades to water efficient devices in homes.

In contrast, water companies as a whole proposed demand measures totalling only 440 million litres/day in their 2009 plans, which accounted for around 30% of the total measures put forward (not including leakage as a demand measure). Part of the reason for this may have been a bias towards capital spend in previous Price Review rounds. **Ofwat should follow through with proposals to ensure that capital projects are not seen as more financially attractive compared to operational spend in the next set of plans for 2014.**

### **Metering**

Having a price for water that reflects its availability and the volume used is needed for effective demand management. Metering is required to achieve this. Our analysis suggests that there is no relationship between the current proportion of metered households in water company areas in England, and their projected supply-demand deficits in the 2020s.

In line with our advice, the Environment Agency's draft methodology for designating areas of water stress now includes analysis of future climate change. This should allow companies with risks from climate change, as well as those which are currently water-stressed, to consider compulsory metering in their 2014 plans. **As suggested in the draft strategy and outlined in the Water Resources Planning Guideline, Ofwat will need to consider the long-term costs and benefits (including the effects of climate change) in evaluating proposals for compulsory metering as part of the PR14 process.**

### **Transparent Decision Making**

Demand-side measures are unlikely to be sufficient on their own to address the risks from climate change. Due to the long lifetime of water infrastructure and the large uncertainties in future rainfall over the long-term, it is very important that decisions over future supply-side measures take account of climate change uncertainty.

**While the Water Resources Planning Guideline provides a detailed approach for estimating uncertainty in calculating future supply-demand deficits, it is less clear from the new guidance how these uncertainties will be dealt with in deciding on the scale of action.** One possible approach developed by Thames Water for exploring the robustness of different supply/demand options against a wide range of future scenarios is shown in our 2011 report. The approach aims to retain flexibility to cope with more severe climate

change in the future by calculating when in the future decisions on more costly supply infrastructure will be needed, once low-regret measures have been implemented. There are a variety of approaches available to water companies, but the approach to treating uncertainty in deciding on their proposed options needs to be transparent in their plans.

I would be happy to discuss these and wider issues with regards to adaptation and water resources further.

Yours Sincerely,

Lord Krebs KT FRS  
Chairman, Adaptation Sub-Committee