



**WWF** *for a living planet*

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## Policy briefing

# Drought and water shortages

### SUMMARY

- Water shortages and droughts have an adverse impact not only on the environment but the economy as well.
- Southern England has experienced around 30% less rainfall than average since November 2004. This is indicative of the kind of change projected under climate change.
- In addition, domestic demand for water has been growing at approximately 1% per year since the 1930s. This has been particularly marked in the South-East, where water resources are most scarce. Increasing population and household growth in South-East England will exacerbate this situation.
- The UK uses on average 150 litres per person per day. Significant efforts to encourage water efficiency have reduced use to 125 – 127 litres per person per day in Austria, Germany and the Netherlands. This represents a potential saving of 9,125 litres per person per year.
- In order to tackle this problem cost-effectively and for the long-term, the Government should: improve water efficiency by introducing water meters in water scarce areas; set stricter efficiency standards for new homes and offer incentives to upgrade water efficiency in existing homes; increase efforts to tackle leakage; and stop damaging abstractions in sensitive areas.

### BACKGROUND

Years of government inaction on increasing water use have placed water supply at a critical level in many parts of England. Any sustained periods of low rainfall lead to constraints on consumer and business water use, and a scarcity in water supply has both environmental and economic impacts. Various business sectors from tourism to agriculture and horticulture are damaged by an inconsistent supply of water.

Furthermore, damaging over-abstraction from our rivers and lakes destroys river and wildlife sites which are protected by UK and EU legislation and enjoyed by millions of people. Heavy abstraction, for example, of internationally important rivers such as the Kennet and Itchen is causing miles of riverbed to dry up in the summer, leading to very serious damage to their ecosystems. In many rivers, such as the Gipping in East Anglia, summer flows are only maintained due to the amount of treated sewage effluent



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being discharged into them. In addition, wetland reserves that are homes to thousands of wading birds are drying up.

#### KEY POINTS

- Damaging over-abstraction is due to increasing water use compounded by historically low levels of rainfall. Increasing demand, population growth and the impacts of climate change are likely to exacerbate this situation. While the situation is most acute in South-East England, severe seasonal impacts occur in other areas.
- Domestic demand for water has been growing at approximately 1% per year since the 1930s. This has been particularly marked in the South-East, where water resources are most scarce. In the Thames Water area, there has been an increase in demand for water of more than 10% in the last decade.<sup>1</sup> Increasing population and household growth in South-East England will exacerbate this situation. For example, London expects to have 800,000 new residents by 2015.
- Southern England has experienced around 30% less average rainfall since November 2004. This is indicative of the kind of change projected under climate change. Even without increasing demand the problem is, therefore, likely to get worse.

#### WWF POSITION - WHAT SHOULD HAPPEN

Cost-effective solutions that tackle the causes of this unsustainable situation for the long-term are required:

##### A) Water savings and water efficiency

Little significant effort has been made to exploit the huge scope that exists for increasing the efficiency with which water is used both in houses and in industry. Many technical solutions are known, yet the political will to implement these has been lacking. Experience from other European nations demonstrates the possibilities. In the UK, we use on average 150 litres per person per day, comparable to France and Portugal. Significant efforts to encourage water efficiency have reduced use to 125 – 127 litres per person per day in Austria, Germany and the Netherlands.<sup>2</sup> In order to achieve this:

1. Compulsory metering should be introduced by DEFRA in areas facing water scarcity. Water meters can lead to water savings of up to 15% and can lead to the more effective location of leakages. Modern meters can allow for flexible tariffs, for example charging more for high levels of 'luxury' use, or during times of high demand pressure.
2. A 'Code for Sustainable Existing Homes' should be developed and introduced as soon as possible, with mandatory assessment of all homes on sale, rental or change of occupancy. Homeowners should be provided with incentives to upgrade the water and energy efficiency of their homes, for example through stamp duty and council tax rebates. This should include the development of water efficiency measures for household appliances.
3. A significant campaign to raise public awareness of water efficiency measures should be ongoing.

##### B) New housing developments

Much of the most significant development of new housing in England is being carried out in areas facing the greatest water pressure.

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<sup>1</sup> DEFRA, e-Digest Statistics about: Inland Water Supply and Use:

<http://www.defra.gov.uk/environment/statistics/inlwater/index.htm>

<sup>2</sup> European Water Association (2005), EWA Yearbook 2005 [www.ewaonline.de](http://www.ewaonline.de)

1. New-build housing must be constructed to the highest standards of water efficiency. The Government's new Code for Sustainable Homes must include the highest standards of water efficiency.
2. New housing development should not result in an overall increase in water abstraction. Any water needed should therefore be offset through efficiency improvements and reduced leakage elsewhere.

#### C) Leakage

The extent of leakage replacement is determined not principally by the water companies but by the water regulator, OFWAT, which approves company spending programmes under guidance from Ministers. As a result of efforts in the late 1990s, leakage rates across England and Wales fell from 23% to 16%.<sup>3</sup>

1. DEFRA should guide OFWAT to approve significant leakage reduction programmes in water scarce areas.
2. Environmental costs must be fully accounted for in the assessment of the economically acceptable level of leakage.

#### D) Stop damaging abstractions

Water abstraction continues to damage some of the most environmentally significant sites in the UK. While some of this is for public water supply, in other cases it is for high water-use industry and agriculture. In certain circumstances, for example, agricultural holdings are located entirely inappropriately, leading to major over-abstraction of the headwaters of internationally significant chalk streams.

1. Abstraction licenses must be revoked where these lead to damage to particularly important natural habitats and rivers.

#### E) The Water Framework Directive

The Water Framework Directive (WFD) is the most far-reaching piece of European legislation affecting water. It requires that water bodies in Member States achieve 'good ecological status' by 2015. Member states are required to develop broad-based River Basin Management Plans by 2009 that set out how this will be achieved. These plans represent a unique opportunity to introduce the required co-ordinated measures across sectors.

1. DEFRA and the Environment Agency should use the opportunities afforded by the WFD to introduce the widespread and coordinated measures necessary to secure future water supply while protecting freshwater ecosystems.

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<sup>3</sup> DEFRA, op. cit.