

# PRESS RELEASE

7<sup>th</sup> March 2017

## Hidden groundwater resource under pressure in southern England

The UK has had less rainfall than usual over the winter, and the south and south-east have been particularly dry meaning that the risk of a drought is increased. New maps published by the British Geological Survey (BGS) illustrate that people in the south and south-east of England are especially reliant on groundwater for their water supply and this provides some resilience to drought. However, groundwater levels are much lower than normal for this time of year and so the importance of managing and protecting groundwater is becoming critical.

This has been a dry winter and groundwater levels have been low in many areas as groundwater levels continued to fall during months when we would usually see them rise. Attention has been particularly drawn to levels in the chalk aquifer of south and south-east England. For example, at Little Bucket Farm in Kent, water levels typically start to rise in November (Figure 1) but this year they did not 'turn' until late January.

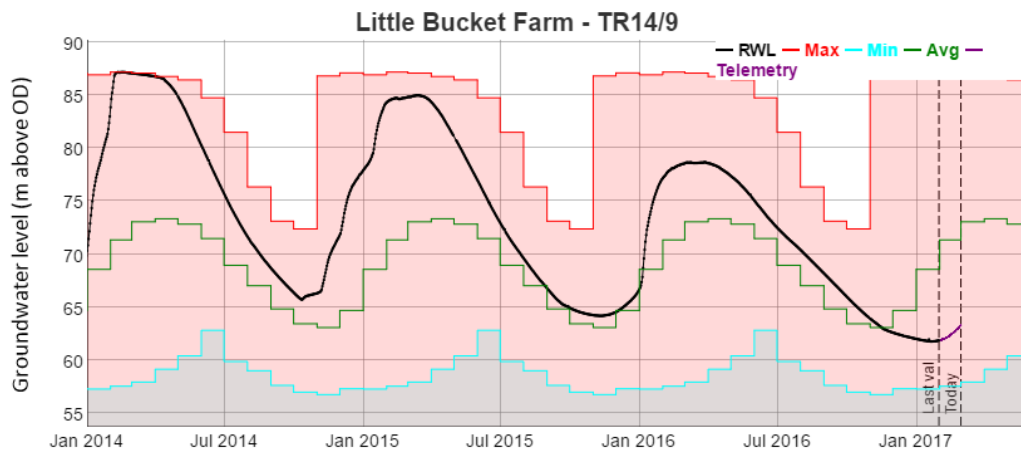


Figure 1: Groundwater levels at Little Bucket Farm (Kent) in the North Downs chalk aquifer, showing water levels (black and purple line) that are significantly below average (green line) for the time of year. Plot shows data to 1<sup>st</sup> March 2017.

BGS have launched new web pages describing groundwater resources in the UK (<http://bgs.ac.uk/research/groundwater/waterResources/GroundwaterInUK/home.html>). We have collated information to provide an overview of the use of groundwater for public supply in the UK. Our map of the proportion of public supply that is provided by groundwater (Figure 2) illustrates the dependence on groundwater in south and south-east England.

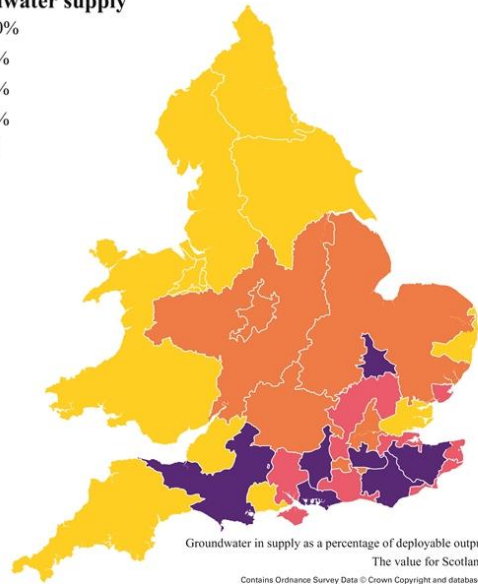
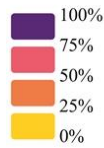
Professor Rob Ward, Director of Groundwater Science at the BGS, said, "The new maps illustrate the importance of groundwater for water supply in the UK, and especially in the south-east. It is essential that we protect this resource, especially during dry periods when the risk of drought is heightened."

Groundwater for public supply



2015

Groundwater supply



Groundwater in supply as a percentage of deployable output, 2015.  
The value for Scotland is 5%.  
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Figure 2: Proportion of public supply coming from groundwater (2015)

Groundwater contributes 30% of public supply water in England. In volume terms, this is over six thousand million litres per day, enough to fill 2500 Olympic-sized swimming pools every day, or run a dishwasher 400 million times! In Wales and Scotland groundwater provides about five per cent of public supply. Across the UK groundwater also provides a crucial source of water to hundreds of thousands of private supplies for domestic, agricultural and industrial use.

The dry winter in more detail:

A long dry spell has led to below average rainfall across most of the UK for the period July 2016 to January 2017 (compared to 1981–2010 average; Met Office data). This rainfall deficit is most pronounced over the south and south-east of England.

Total rainfall data (Met Office) for February indicate that rainfall was fairly normal in the south of England, however, in the south of England this fell mostly in the first week of February.

Background information about groundwater:

Groundwater is not as visible as rivers and sea, but it is a valuable source of water in the UK. Groundwater provides almost a third of public water supply in England, and makes an important contribution in Wales and Scotland. Vast quantities of groundwater are also exploited for private supplies for domestic, agricultural and industrial use. During the summer months groundwater also maintains the flow in many of our rivers and wetlands.

Further information is provided on our webpages:

<http://bgs.ac.uk/research/groundwater/waterResources/GroundwaterInUK/home.html>

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Notes for Editors

The following are available for interview:

- Professor Rob Ward, British Geological Survey
- Dr John Bloomfield
- Emily Crane

For additional information go to: [www.bgs.ac.uk](http://www.bgs.ac.uk)

Images are available from our ftp server: <ftp://ftp.bgs.ac.uk/pubload/bgspress>

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The Natural Environment Research Council

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