British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Outlook based on modelled groundwater level & climate forecast

Overview

Period: November 2016 – January 2017

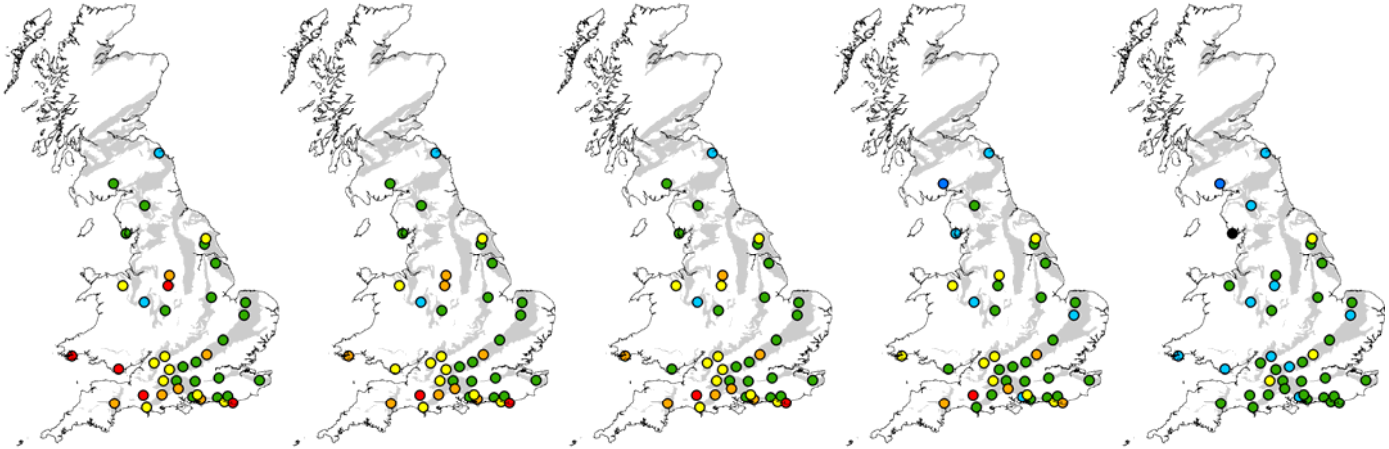
Issued on 07.11.2016 using data to the end of October

A relatively late onset of autumn recharge has raised the possibility that below normal , and locally notably low or exceptionally low, levels may develop in some responsive Chalk aquifers over the next month. Over a 3 month period groundwater levels in the southern chalk are slightly more likely to be below normal than above, but the outlook is still highly sensitive to rainfall.

These forecasts are produced by running five members of the Met Office ensemble climate forecast through groundwater models of observation borehole hydrographs at 42 sites across the country. The sites are distributed across the principal aquifers.

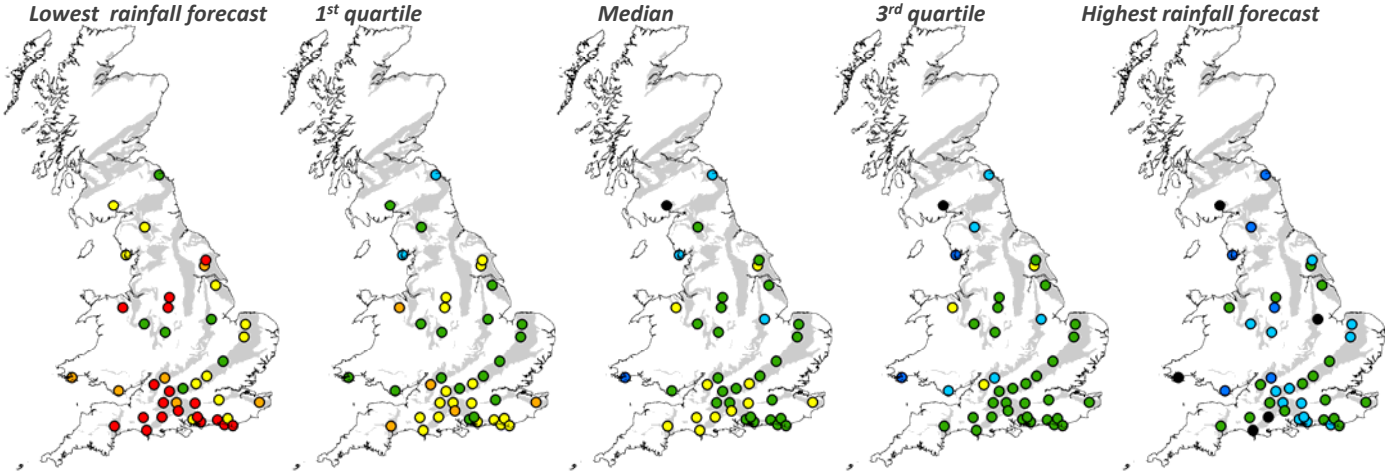
Based on the distribution of observed historical groundwater levels in a given month, seven categories have been derived for each site: very low, low, below normal, normal, above normal, high, and very high. The forecast groundwater level is assigned to one of these seven categories depending on where it falls within the distribution of the historically observed values.

Lowest rainfall forecast | *1st quartile* | *Median* | *3rd quartile* | *Highest rainfall forecast*



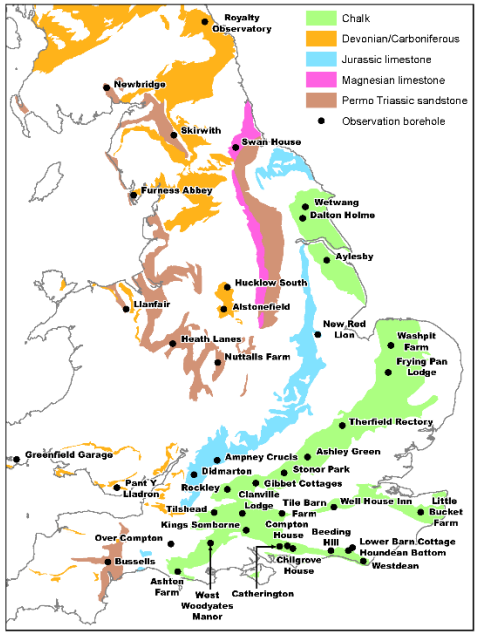
1-month outlook

Lowest rainfall forecast | *1st quartile* | *Median* | *3rd quartile* | *Highest rainfall forecast*



3-month outlook

Key	Percentile range of historic observed values for relevant month
Exceptionally high levels	> 95
Notably high levels	87-95
Above normal	72-87
Normal	28-72
Below normal	13-28
Notably low levels	5-13
Exceptionally low levels	< 5



The Hydrological Outlook UK provides an outlook for the water situation for the UK over the next three months and beyond. For guidance on how to interpret the outlook, a wider range of information, and a full description of underpinning methods, please visit the website: www.hydoutuk.net

GROUNDWATER FROM CLIMATE FORECASTS

November 2016