

# Monthly water situation report: England

## 1 Summary - February 2023

It was the driest February across England since 1993. Monthly rainfall totals in February were below average for all catchments across England. Soil moisture deficits remain low across England at the end of February but are higher than average for this time of year. River flows decreased at all but two of the indicator sites, and most sites were below normal or lower for the time of year. Groundwater levels increased at almost half of indicator sites, with groundwater levels at the end of February normal in most places. Reservoir stocks in February decreased at more than half of the reservoir and reservoir groups we report on and almost two-thirds remain either normal or below normal for the time of year.

### 1.1 Rainfall

The February rainfall total for England was 15.3mm which represents 27% of the 1961 to 1990 long term average (LTA) for the time of year (23% of the 1991 to 2020 LTA). All catchments across England received below average rainfall during February. The wettest hydrological area relative to its LTA, was the Esk (Cumb) catchment in north-west England which received 70% of LTA rainfall for February. The driest hydrological area was the River Darent catchment in south east England with 7% of LTA rainfall for February. (Figure 2.1)

February rainfall totals were classed as notably or exceptionally low at more than four fifths of catchments across England. Many catchments recorded their top ten driest February on record since 1891 and it was the driest February for England since 1993. It was the driest February across 29 catchments since 1959 and driest in east Suffolk since February 1891. At the regional scale rainfall was well below average across England with almost all regions receiving notably or exceptionally low rainfall for the time of year. The exception was the north-west where rainfall was below normal for the time of year. South east England had the driest February since 1959. February rainfall across England as a whole was classed as notably low. (Figure 2.2)

The 3 months cumulative rainfall totals show that over two-thirds of catchments in England are classed as normal whereas the remaining third, chiefly in central and eastern England, are below normal or lower. The 6 month cumulative rainfall totals shows a wetter pattern, with all catchments either normal or higher with a quarter of catchments notably high. The 12 month cumulative rainfall totals are classed as normal or below normal for over three quarters of catchments. Two catchments in Norfolk are classed as exceptionally low and 32 catchments are the driest since the 12 month period from March 2011 to February 2012. (Figure 2.3)

### 1.2 Soil moisture deficit

Soil moisture deficits (SMD) remain low across England at the end of February. Soil deficits have increased across central and eastern England and soils remain relatively dry across most of the country for the time of year. (Figure 3.1)

February SMD values across the majority of the country were close to the LTA for the time of year although difference to LTA have increased across central, eastern and south east England. At a regional scale, the end of February SMD for most regions were below average for the time of year notably so in central and eastern England. (Figure 3.2)

### 1.3 River flows

February monthly mean river flows decreased at all but two indicator sites we report on since January. More than four-fifths of sites were below normal or lower for the time of year, including fifteen sites that were exceptionally low for the time of year. Five sites in total, Marston on Dove, Crakehill on the River Swale, Bathford on the Bristol Avon, Manley Hall on the River Dee and Redbrook on the River Wye, recorded their lowest mean monthly flow for February on record starting in 1965,1980,1969,1970 and 1969 respectively. (Figure 4.1)

Monthly mean flows for all the regional index sites showed a mixed picture for the February. Flows on, the Great Stour at Horton, the South Tyne at Haydon Bridge and the Bedford Ouse at Offord were below normal for the time of year. As mentioned the River Dove at Marston-on-Dove was classed as exceptionally low having recorded its lowest monthly mean flow for February in a record that began in 1965. The naturalised flows on the River Thames at Kingston and the River Lune at Caton was classed as notably low and normal respectively. The River Exe at Thorverton in south west England recorded no data due to a maintenance issue at site. (Figure 4.2)

### 1.4 Groundwater levels

At the end of February, groundwater levels increased at half of the reported indicator sites however below average rainfall has slowed seasonal recharge in many aquifers with groundwater levels decreasing at 12 sites. Nearly two thirds of end of month groundwater levels were classed as normal for the time of year. Five sites were classed as being below normal for the time of year. (Figure 5.1)

The major aquifer index sites showed a varied picture at the end of February, ranging from exceptionally low to above normal levels. Levels at Jackments Bottom in the Burford Jurassic Limestone decreased to be classed as exceptionally low. Stonor Park in the South West Chilterns Chalk remained at below normal levels. In contrast Little Bucket in the East Kent Stour Chalk and Weir Farm in the Bridgnorth Sandstone were above normal for the time of year. Normal groundwater levels were reported at Dalton Estate Well in the Hull and East Riding Chalk, at Redlands Hall in the Cam and Ely Ouse Chalk, and Skirwith in the Carlisle Basin and Eden Valley Sandstone. Levels at Chilgrove in the Chichester Chalk fell from above normal levels to normal levels during February. (Figure 5.2)

### 1.5 Reservoir storage

Reservoir stocks at the end of February had decreased at more than half of the reservoirs and reservoir groups that we report on. Two reservoirs, Blithfield in central England and Haweswater and Thirlmere in north-west England, saw a stock decrease of 10% compared to the end of January. The largest stock increases, 8% each, were recorded at Lower Lee group

in south east England and Hanningfield in eastern England. Nearly two-thirds of the reservoirs or reservoir groups were classed as normal or below normal for the time of year. Nine reservoirs across England are classed as notably low and Colliford in the south west remains at exceptionally low levels for the time of year. Reservoir safety work is ongoing at the Dee reservoirs which supply north-west England meaning storage is lower than would be expected for the time of year. (Figure 6.1)

At the regional scale, total reservoir stocks ranged from 74% in south-west England to 94% in south-east England. Total reservoir stocks for England were at 87% of total capacity at the end of February. (Figure 6.2)

## **1.6 Forward look**

March began with ongoing dry conditions in many places, followed by wintry conditions bringing sleet and snow to much of the country. The middle of the month is expected to be dominated by unsettled conditions with periods of snow remaining possible particularly in the north. Heavy rain and strong winds are possible in the west and south, although temperatures are expected to be around average. Towards the end of March conditions are likely to be drier in the north, while strong wind and rain is likely in the south. Temperatures are expected to be around average with milder spells in the south and colder conditions in the north.

For the 3 month period for the UK from March to May there is an increased chance of warmer than expected conditions, particularly from April onwards. There is a higher than normal chance of a dry spring, but average or wet conditions remain possible.

## **1.7 Projections for river flows at key sites**

By the end of March 2023 river flows have a greater likelihood of being below normal across most of England although north east and southern England river flows have a greater chance of being normal. By the end of September 2023 river flows have an increased chance of being below normal in all regions, with sites in the east having the highest chance of lower than normal flows.

For scenario based projections of cumulative river flows at key sites by March 2023 see Figure 7.1.

For scenario based projections of cumulative river flows at key sites by September 2023 see Figure 7.2.

For probabilistic ensemble projections of cumulative river flows at key sites by March 2023 see Figure 7.3.

For probabilistic ensemble projections of cumulative river flows at key sites by September 2023 see Figure 7.4.

## 1.8 Projections for groundwater levels in key aquifers

By the end of March 2023 groundwater levels have a greater likelihood of being lower than normal in north west, north east and east England. In south west and central England groundwater levels have a higher likelihood of being above normal. By the end of September 2023 groundwater levels have a greater likelihood of being lower than normal in the north west, north east and east England. In the rest of the country normal groundwater levels are most likely.

For scenario based projections of groundwater levels in key aquifers in March 2023 see Figure 7.5.

For scenario based projections of groundwater levels in key aquifers in September 2023 see Figure 7.6.

For probabilistic ensemble projections of groundwater levels in key aquifers in March 2023 see Figure 7.7.

For probabilistic ensemble projections of groundwater levels in key aquifers in September 2023 see Figure 7.8.

Author: National Water Resources Hydrology Team, [Nationalhydrology@environment-agency.gov.uk](mailto:Nationalhydrology@environment-agency.gov.uk)

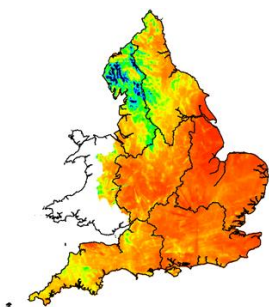
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## 2 Rainfall

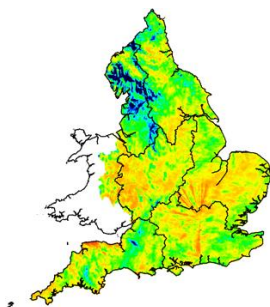
### 2.1 Rainfall map

Figure 2.1: Monthly rainfall across England and Wales for the past 11 months. UKPP radar data Note: Radar beam blockages in some regions may give anomalous totals in some areas.

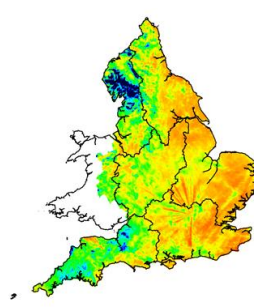
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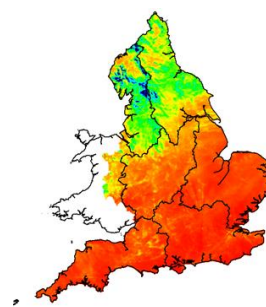
May 2022



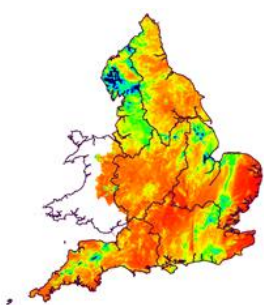
June 2022



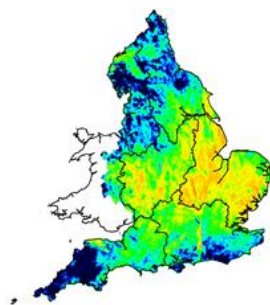
July 2022



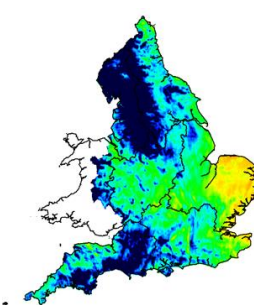
August 2022



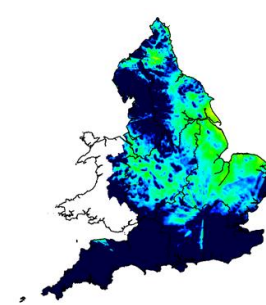
September 2022



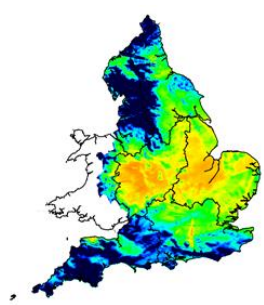
October 2022



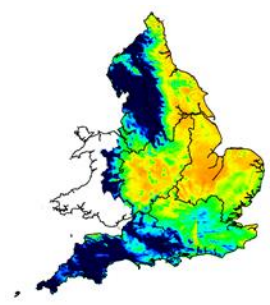
November 2022



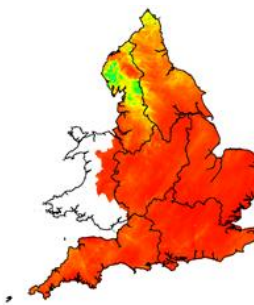
December 2022



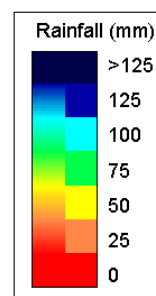
January 2023



February 2023

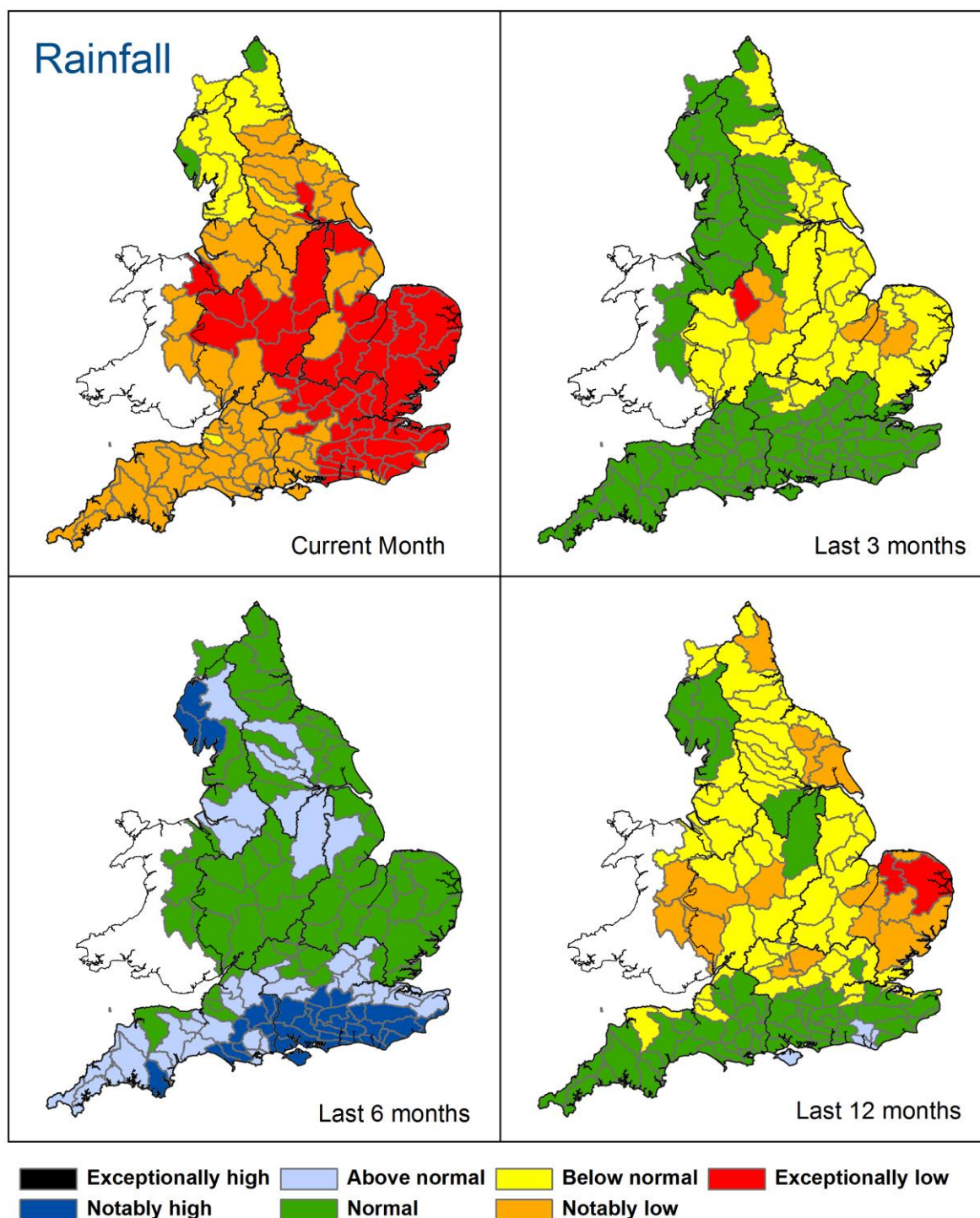


Map Legend



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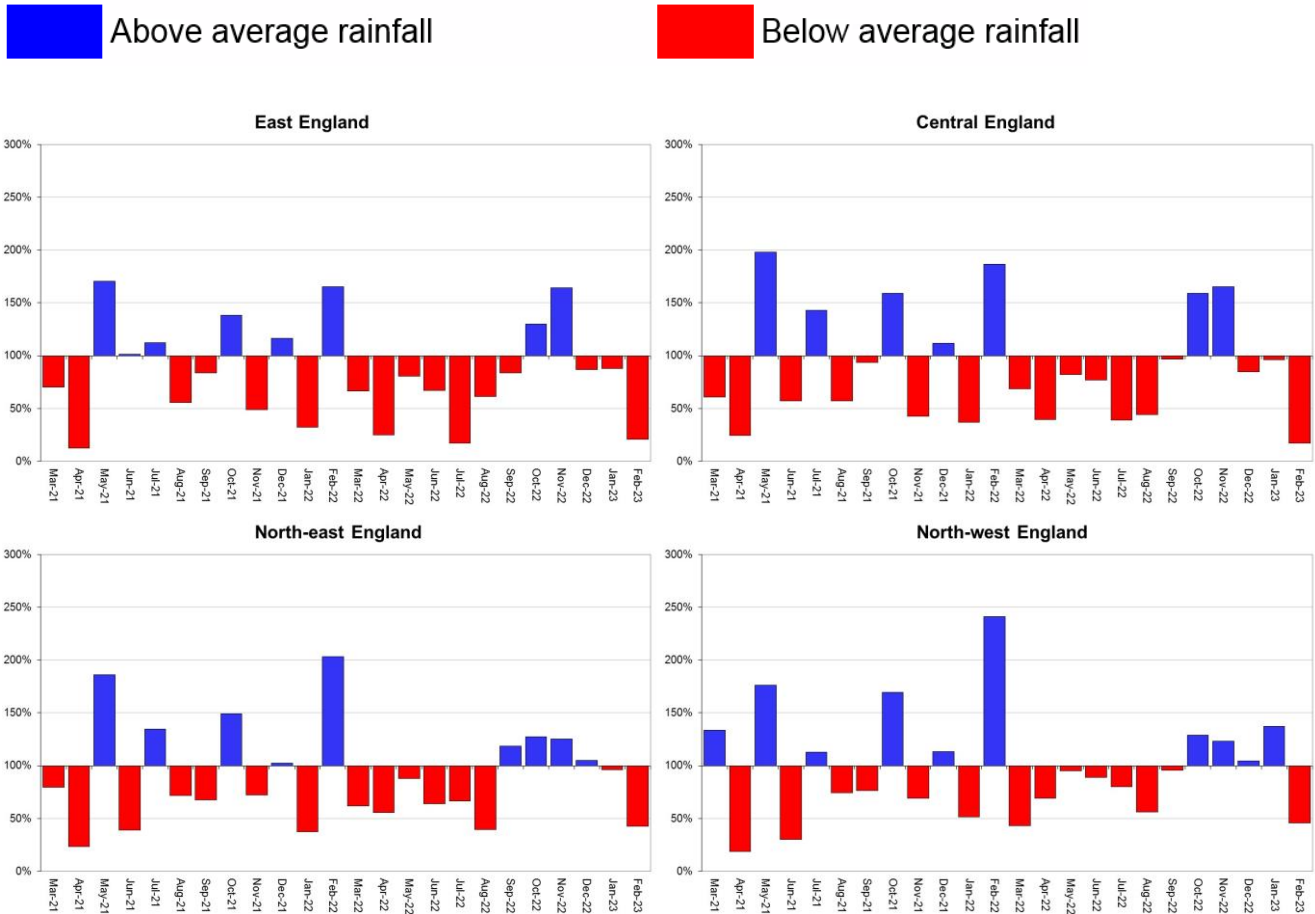
Figure 2.2: Total rainfall for hydrological areas across England for the current month (up to 28 February 2023), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals.

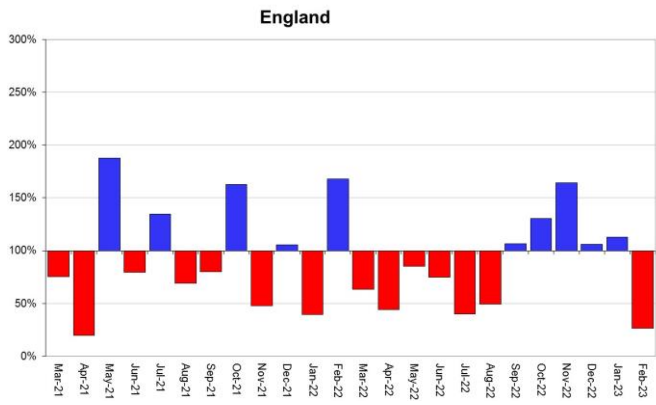
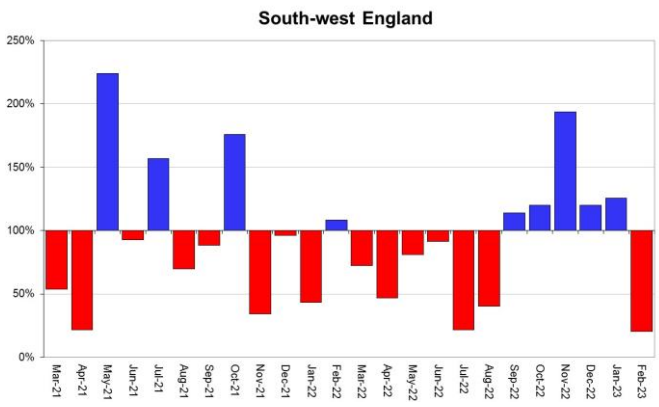
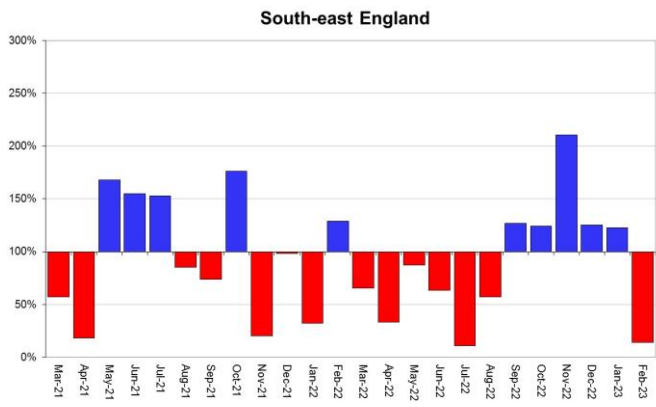


HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges (Source: Met Office. Crown copyright, 2023). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

## 2.2 Rainfall charts

Figure 2.3: Monthly rainfall totals for the past 24 months as a percentage of the 1961 to 1990 long term average for each region and for England.





HadUK rainfall data. (Source: Met Office. Crown copyright, 2023).



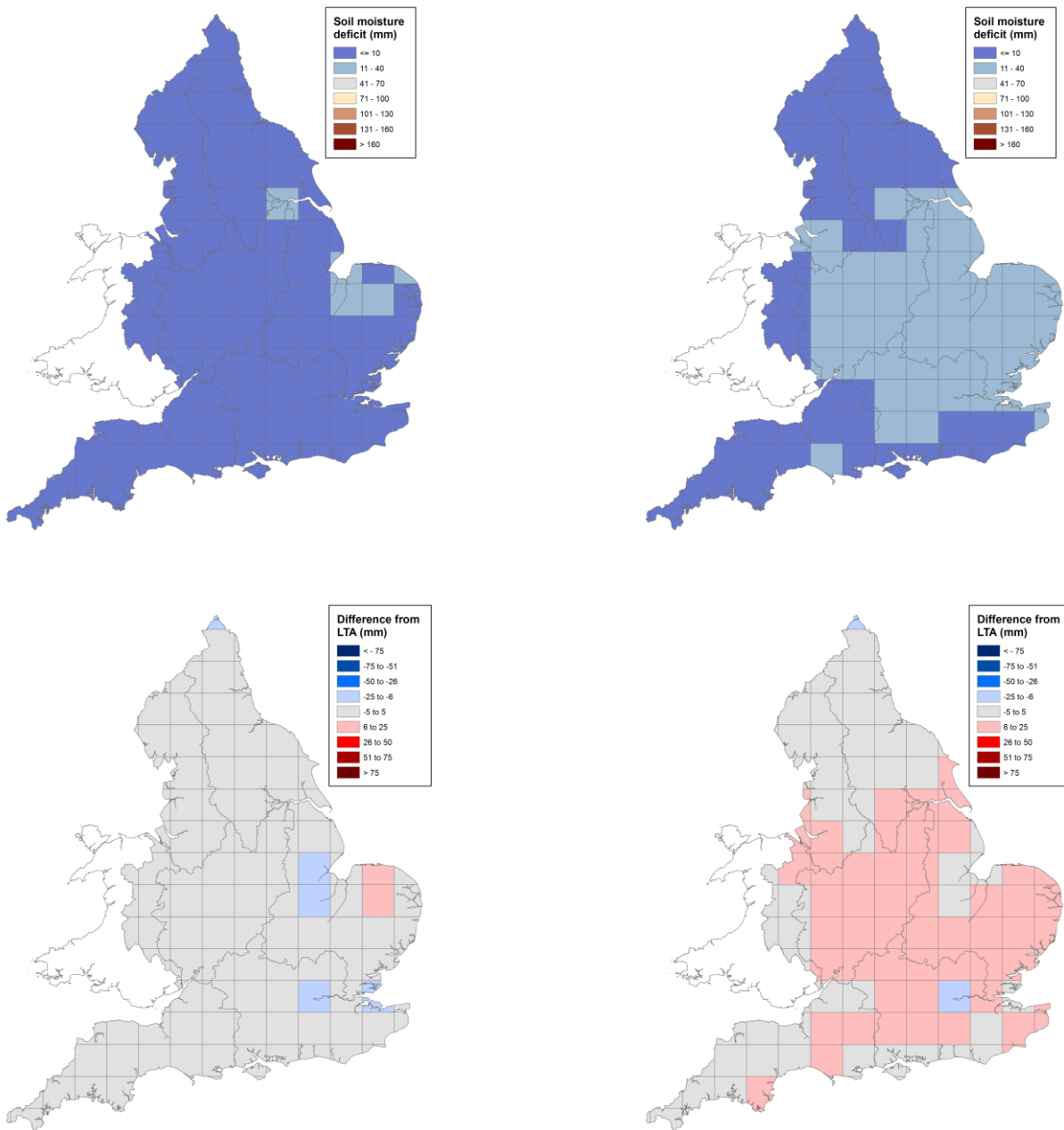
### 3 Soil moisture deficit

#### 3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for weeks ending, 01 February 2023 (left panel) and 01 March 2023 (right panel). Top row shows actual soil moisture deficits (mm) and bottom row shows the difference (mm) of the actual from the 1961 to 1990 long term average soil moisture deficits. MORECS data for real land use.

End of January 2023

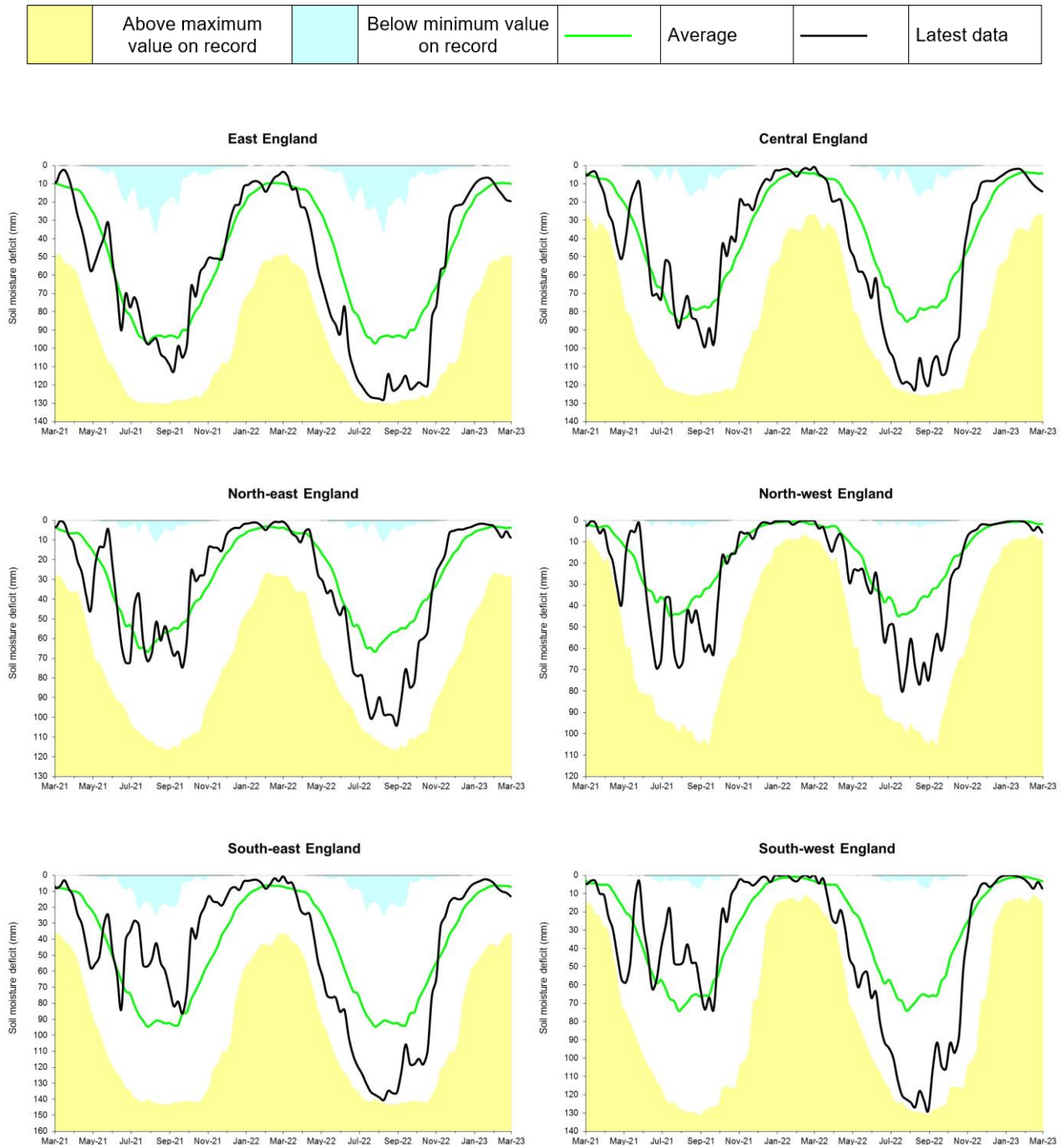
End of February 2023



(Source: Met Office. Crown copyright, 2023). Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

## 3.2 Soil moisture deficit charts

Figure 3.2: Latest soil moisture deficits for all geographic regions compared to maximum, minimum and 1961 to 1990 long term average. Weekly MORECS data for real land use.



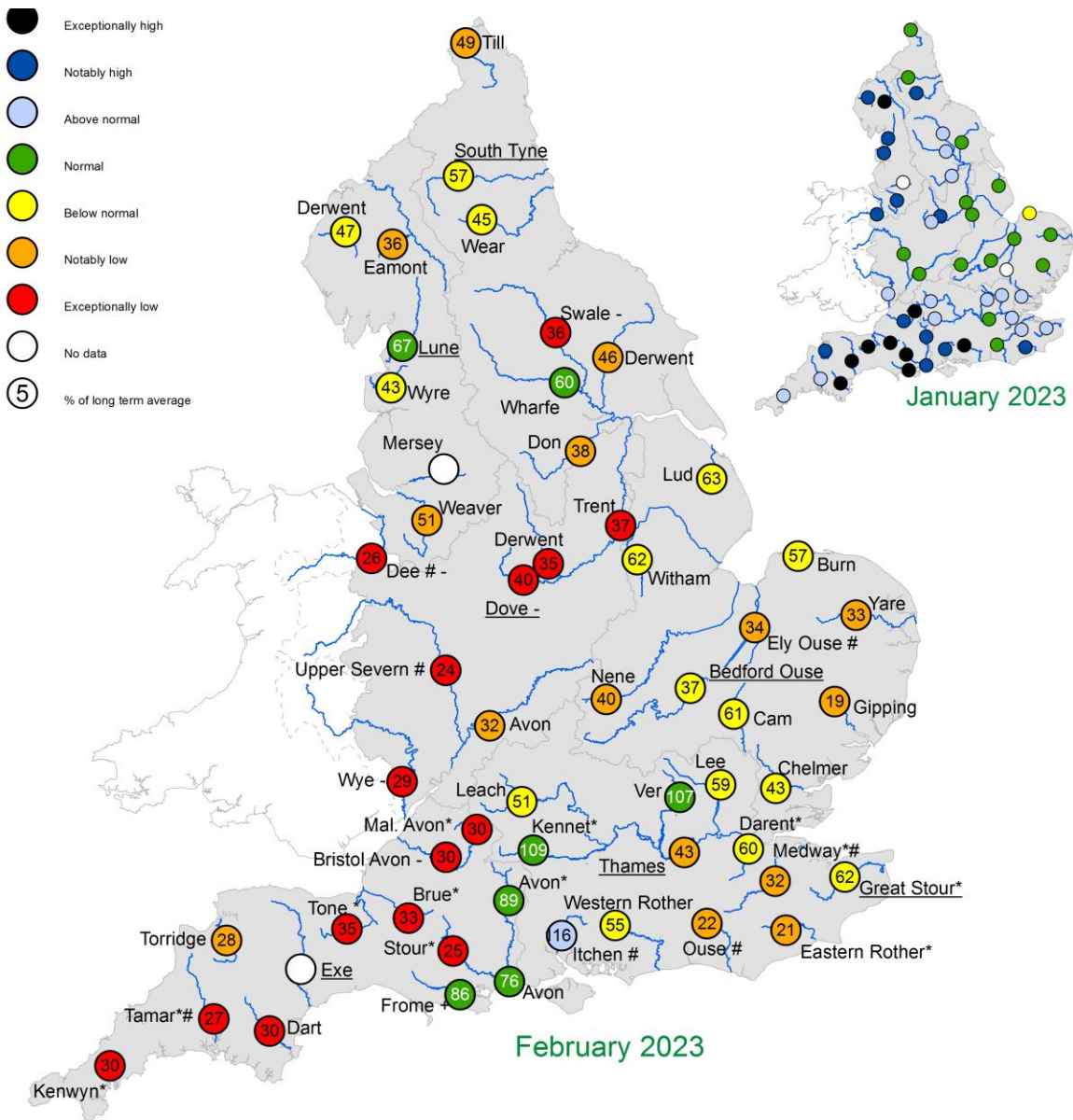
(Source: Met Office. Crown copyright, 2023).

# 4 River flows

## 4.1 River flow map

Figure 4.1: Monthly mean river flow for indicator sites for January 2023 and February 2023, expressed as a percentage of the respective long term average and classed relative to an analysis of historic January and February monthly means. Table available in the appendices with detailed information. Regional index sites are underlined and shown in the hydrographs in Figure 4.2.

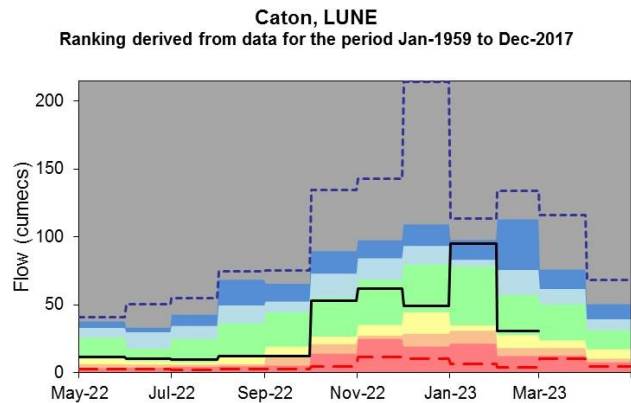
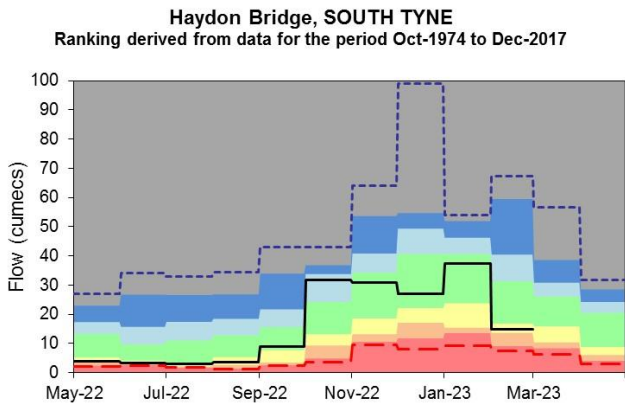
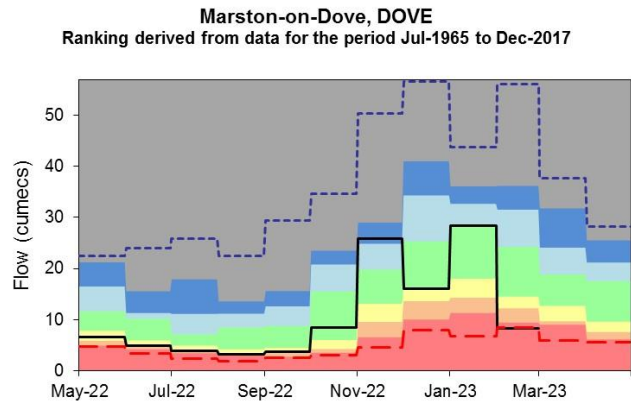
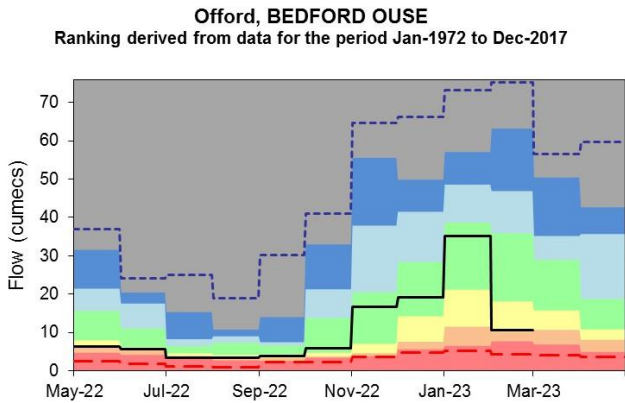
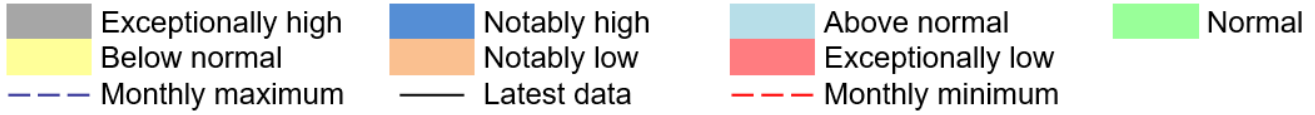
Naturalised flows are provided for the River Thames and the River Lee. +/- Monthly mean flow is the highest/lowest on record for the current month (note that record length varies between sites). \* Flows may be overestimated at these sites – data should be treated with caution. # Flows may be impacted at these sites by water releases from upstream reservoirs.



(Source: Environment Agency). Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

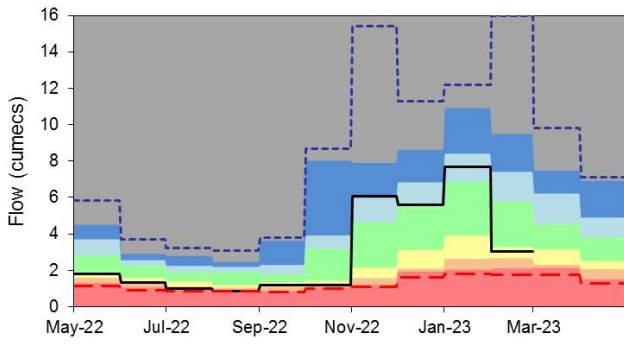
## 4.2 River flow charts

Figure 4.2: Monthly mean river flow for index sites over the past year for each geographic region, compared to an analysis of historic monthly mean flows, and long term maximum and minimum flows. No data available for Thorverton on the River Exe.



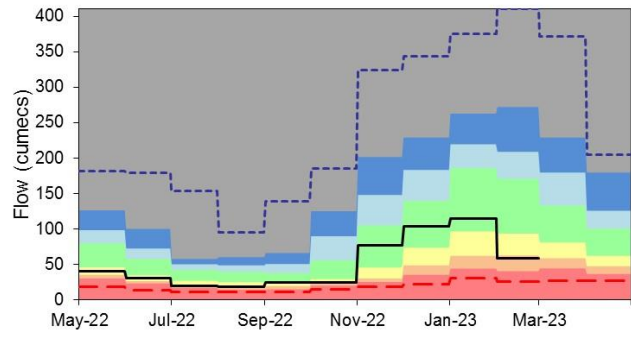
### Horton, GREAT STOUR

Ranking derived from data for the period Oct-1964 to Dec-2017



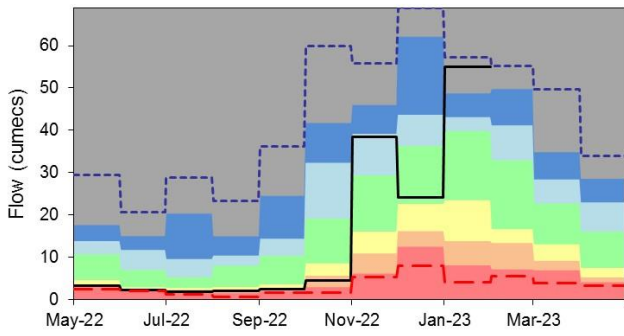
### Kingston, THAMES

Ranking derived from data for the period Jan-1883 to Dec-2017



### Thorverton, EXE

Ranking derived from data for the period Apr-1956 to Dec-2017



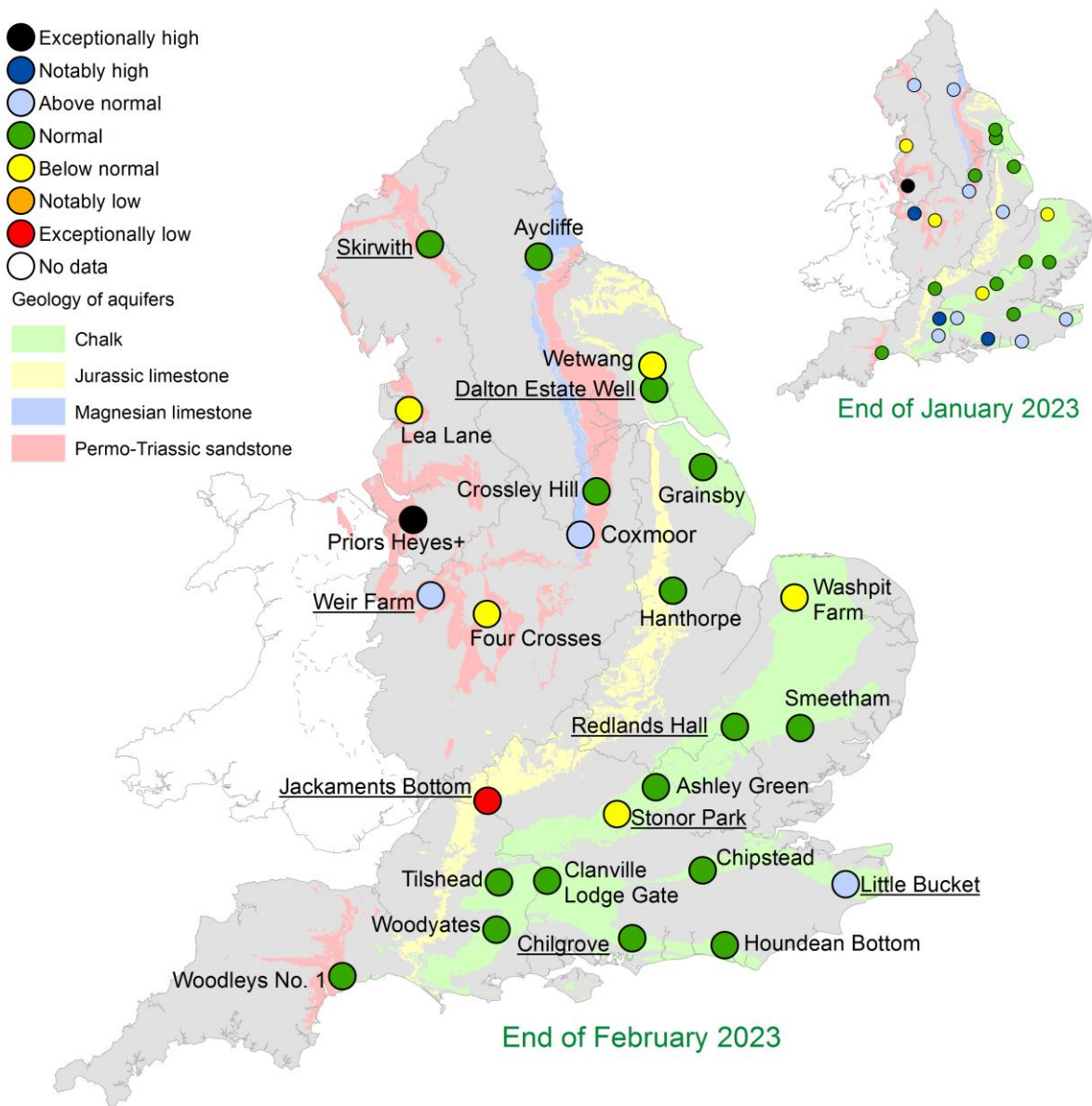
(Source: Environment Agency).

# 5 Groundwater levels

## 5.1 Groundwater levels map

Figure 5.1: Groundwater levels for indicator sites at the end of January 2023 and February 2023, classed relative to an analysis of respective historic January and February levels. Major aquifer index sites are underlined and shown in groundwater level charts in Figure 5.2.

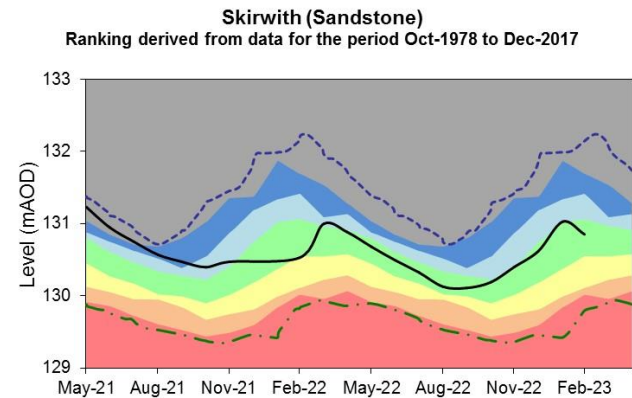
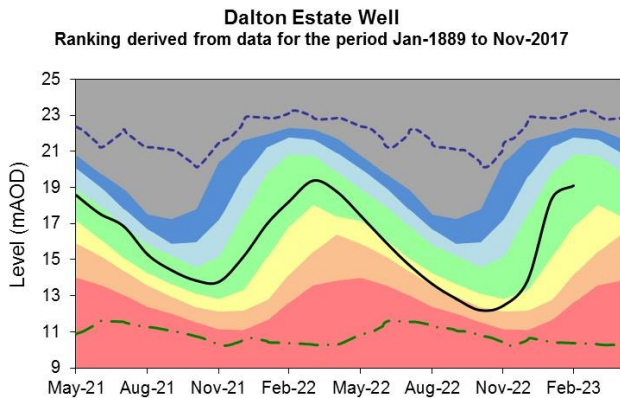
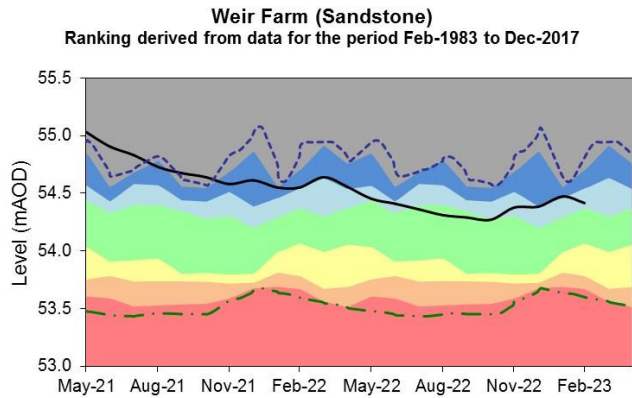
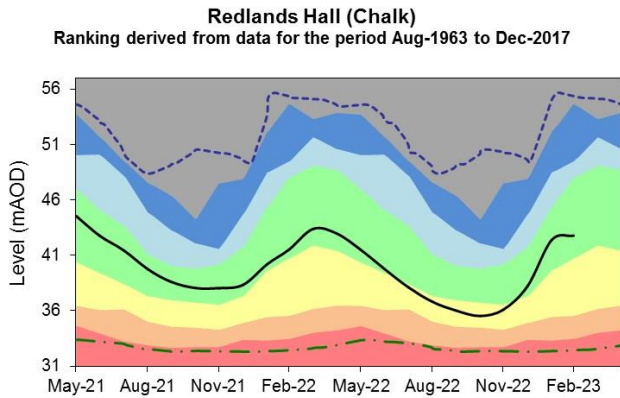
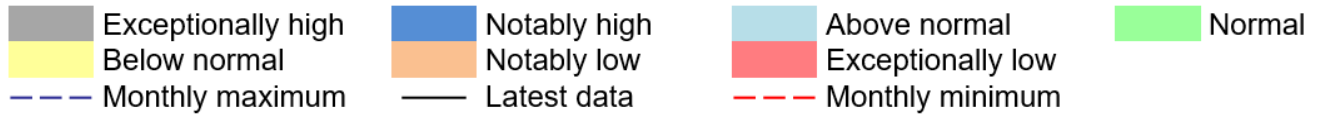
Redlands Hall and Aycliffe are manually dipped at different times during the month and so may not be fully representative of month end levels. Levels at Priors Heyes remain high compared to historic levels because the aquifer is recovering from the effects of historic abstraction. +/- End of month groundwater level is the highest/lowest on record for the current month (note that record length varies between sites).



(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

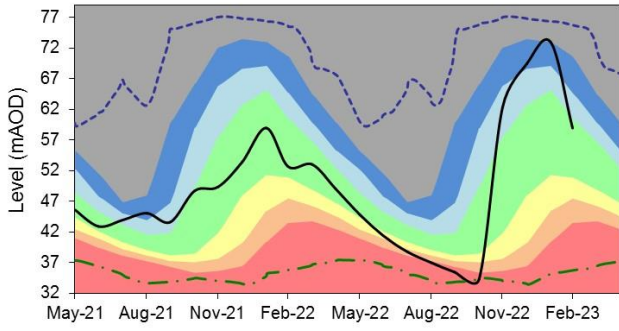
## 5.2 Groundwater level charts

Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. Past 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.



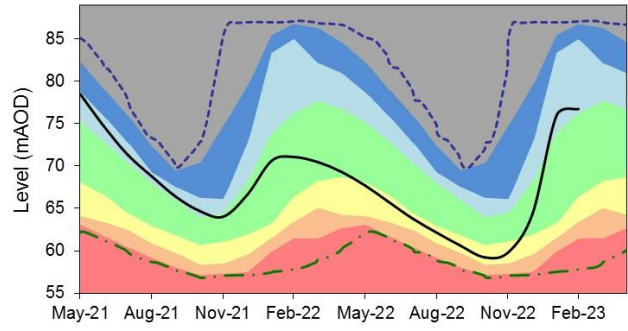
### Chilgrove (Chalk)

Ranking derived from data for the period Feb-1836 to Dec-2017



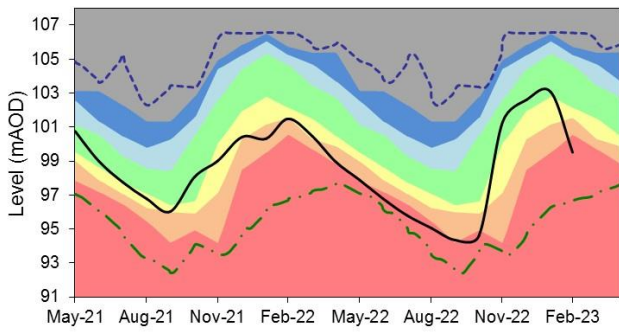
### Little Bucket (Chalk)

Ranking derived from data for the period Jan-1971 to Dec-2017



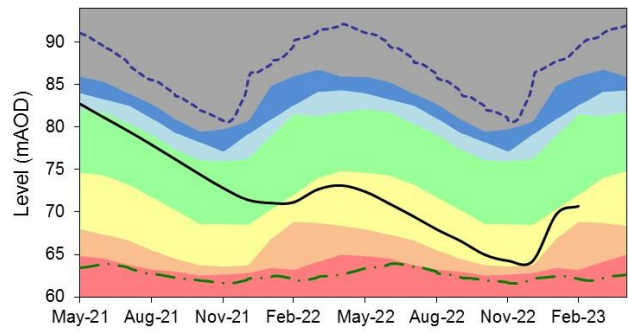
### Jackaments Bottom (Jurassic Limestone)

Ranking derived from data for the period Jan-1974 to Dec-2017



### Stonor Park (Chalk)

Ranking derived from data for the period May-1961 to Dec-2017



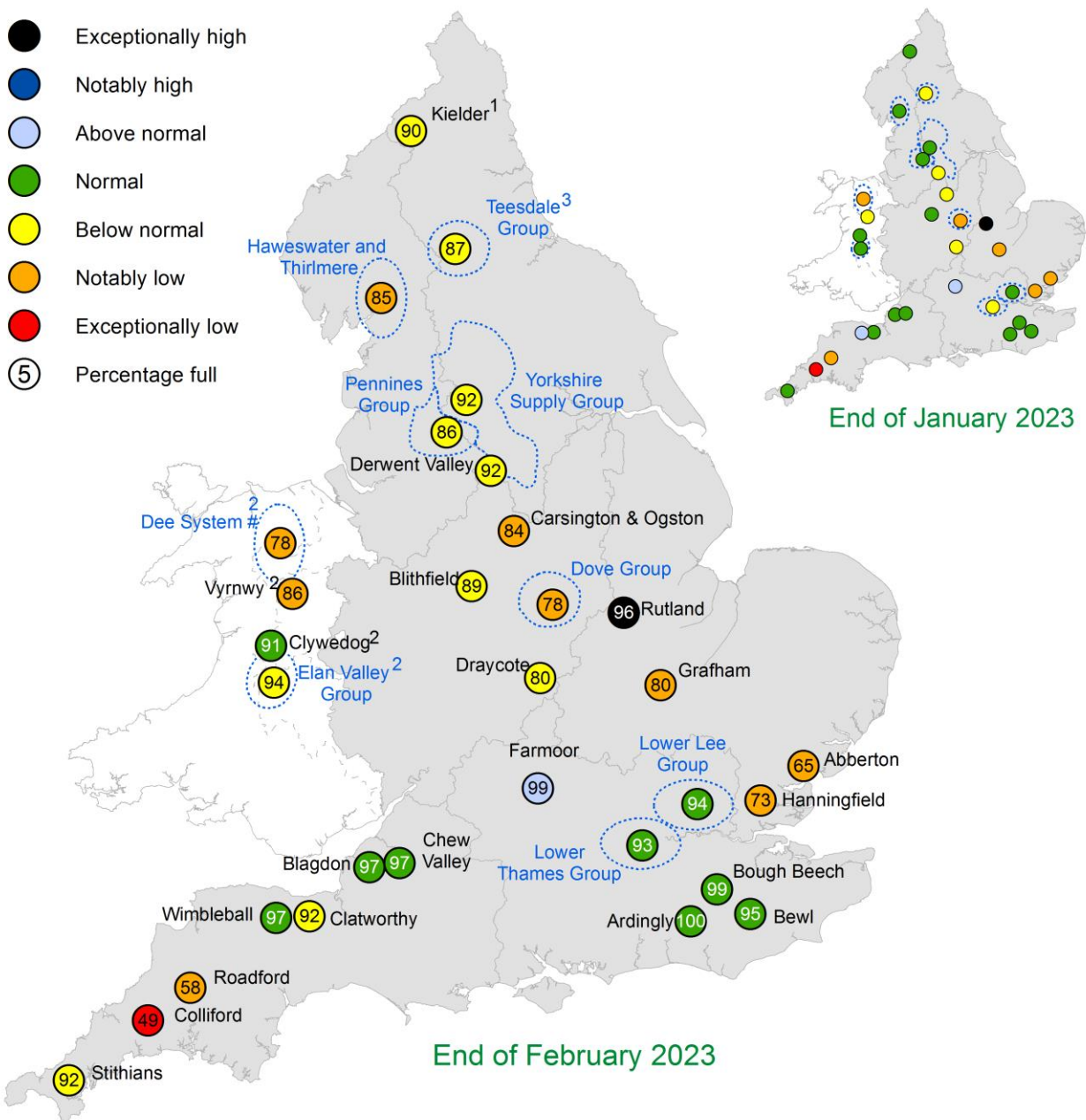
(Source: Environment Agency, 2023)



# 6 Reservoir storage

## 6.1 Reservoir storage map

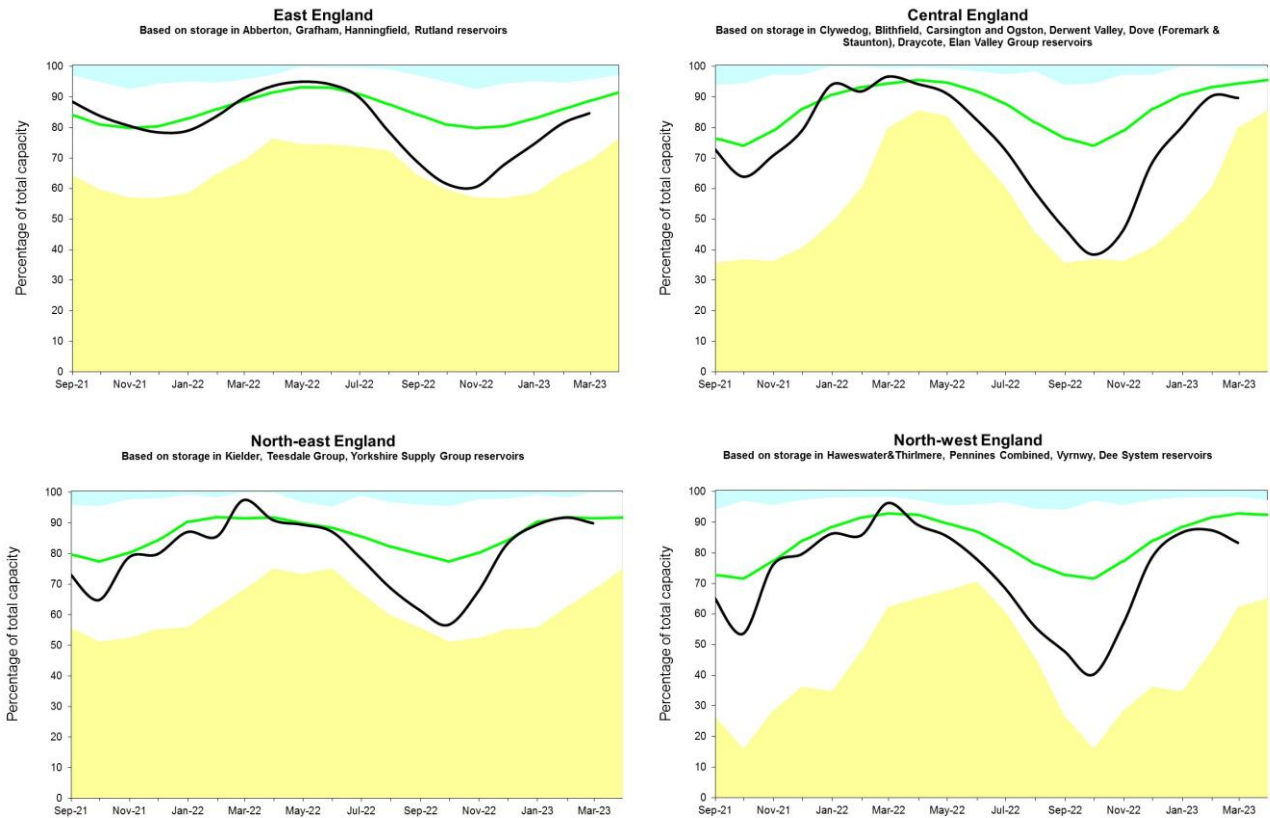
Figure 6.1: Reservoir stocks at key individual and groups of reservoirs at the end of January 2023 and February 2023 as a percentage of total capacity and classed relative to an analysis of historic January and February values respectively. Note: Classes shown may not necessarily relate to control curves or triggers for drought actions. As well as for public water supply, some reservoirs are drawn down to provide flood storage, river compensation flows or for reservoir safety inspections. In some cases current reservoir operating rules may differ from historic ones.

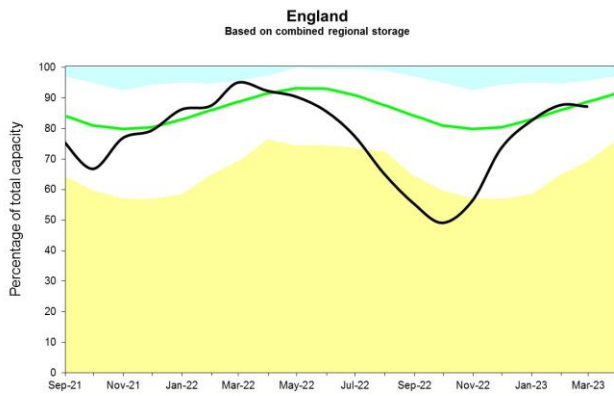
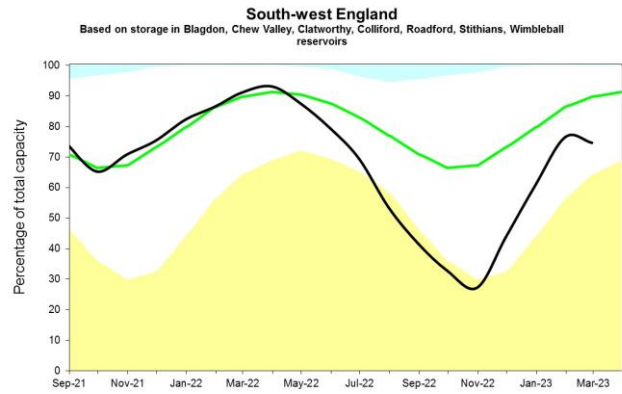
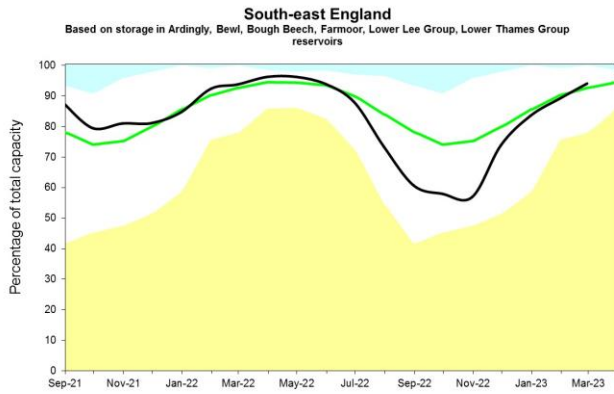


(Source: water companies). Crown copyright. All rights reserved. Environment Agency, 100024198, 2023

## 6.2 Reservoir storage charts

Figure 6.2: Regional reservoir stocks. End of month reservoir stocks compared to long term maximum, minimum and average stocks. Note: Historic records of individual reservoirs/reservoir groups making up the regional values vary in length.





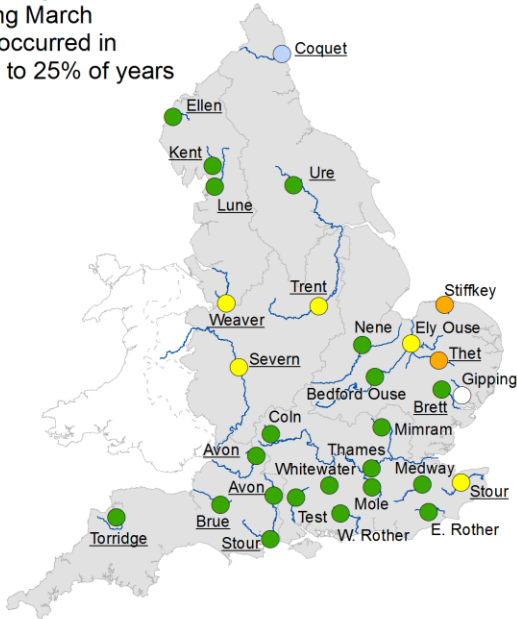
(Source: Water Companies).

# 7 Forward look

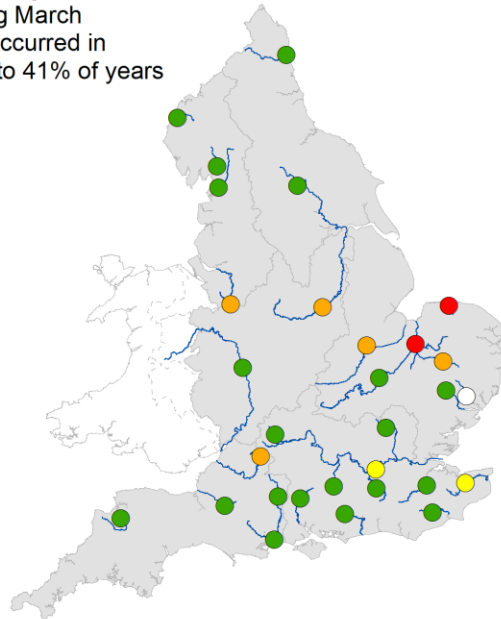
## 7.1 River flow

Figure 7.1: Projected river flows at key indicator sites up until the end of March 2023. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall during March 2023. Rainfall statistics based on occurrence in the historic record since 1891. Projections for underlined sites produced by CEH.

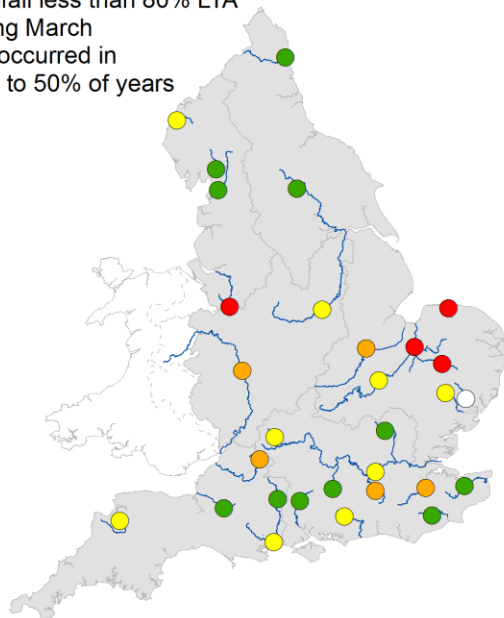
Rainfall greater than 120% LTA during March has occurred in 22% to 25% of years



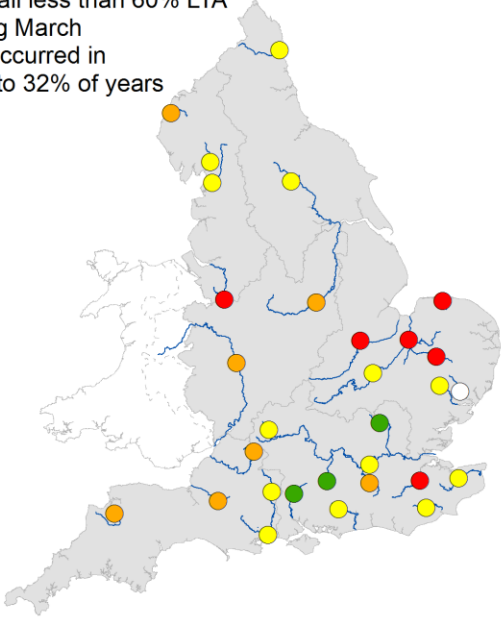
Rainfall greater than 100% LTA during March has occurred in 33% to 41% of years



Rainfall less than 80% LTA during March has occurred in 43% to 50% of years



Rainfall less than 60% LTA during March has occurred in 25% to 32% of years

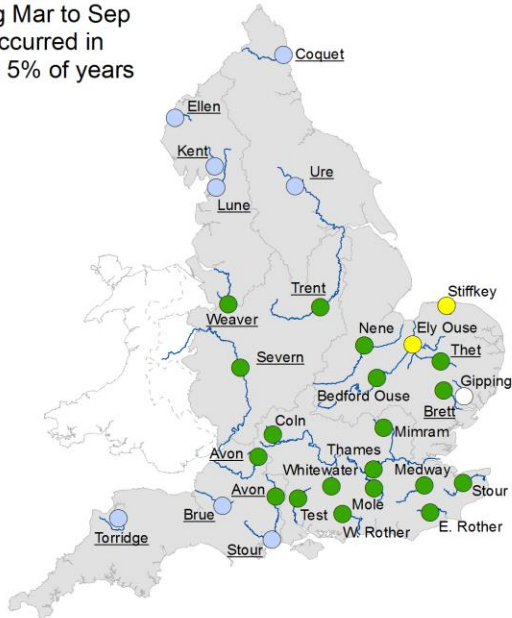


- Exceptionally high
- Above normal
- Below normal
- Exceptionally low
- Notably high
- Normal
- Notably low
- No data

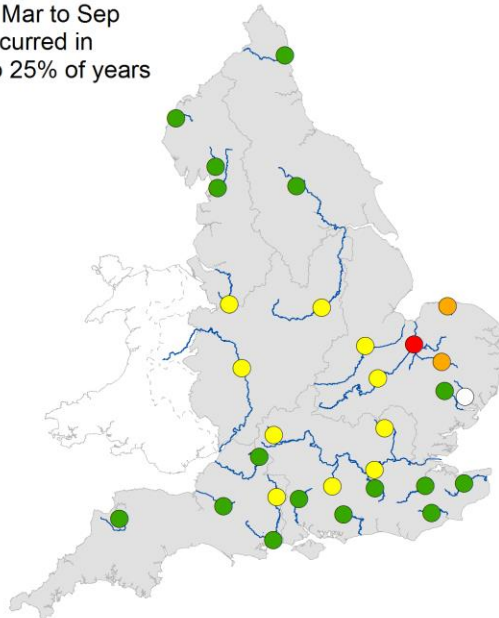
(Source: UK Centre for Ecology and Hydrology, Environment Agency).

Figure 7.2: Projected river flows at key indicator sites up until the end of September 2023. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall between March 2023 and September 2023. Rainfall statistics based on occurrence in the historic record since 1891. Projections for underlined sites produced by CEH.

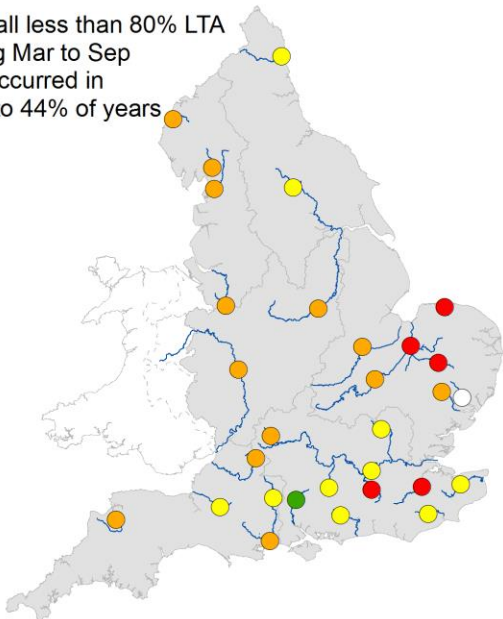
Rainfall greater than 120% LTA during Mar to Sep has occurred in 1% to 5% of years



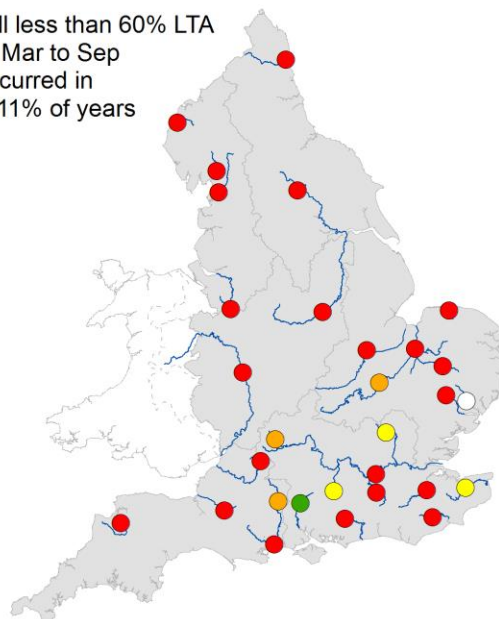
Rainfall greater than 100% LTA during Mar to Sep has occurred in 19% to 25% of years



Rainfall less than 80% LTA during Mar to Sep has occurred in 36% to 44% of years



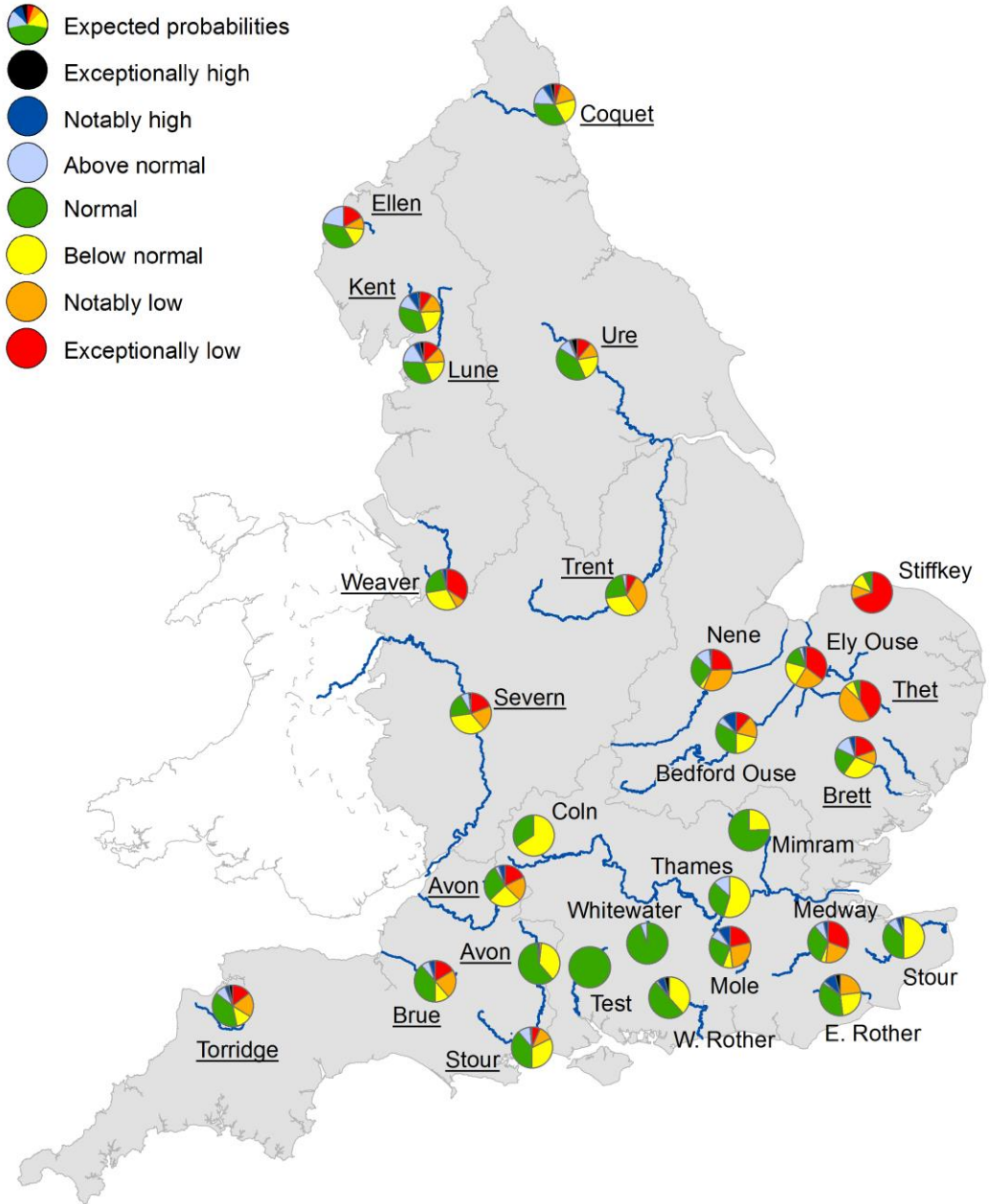
Rainfall less than 60% LTA during Mar to Sep has occurred in 3% to 11% of years



- Exceptionally high
- Above normal
- Below normal
- Exceptionally low
- Notably high
- Normal
- Notably low
- No data

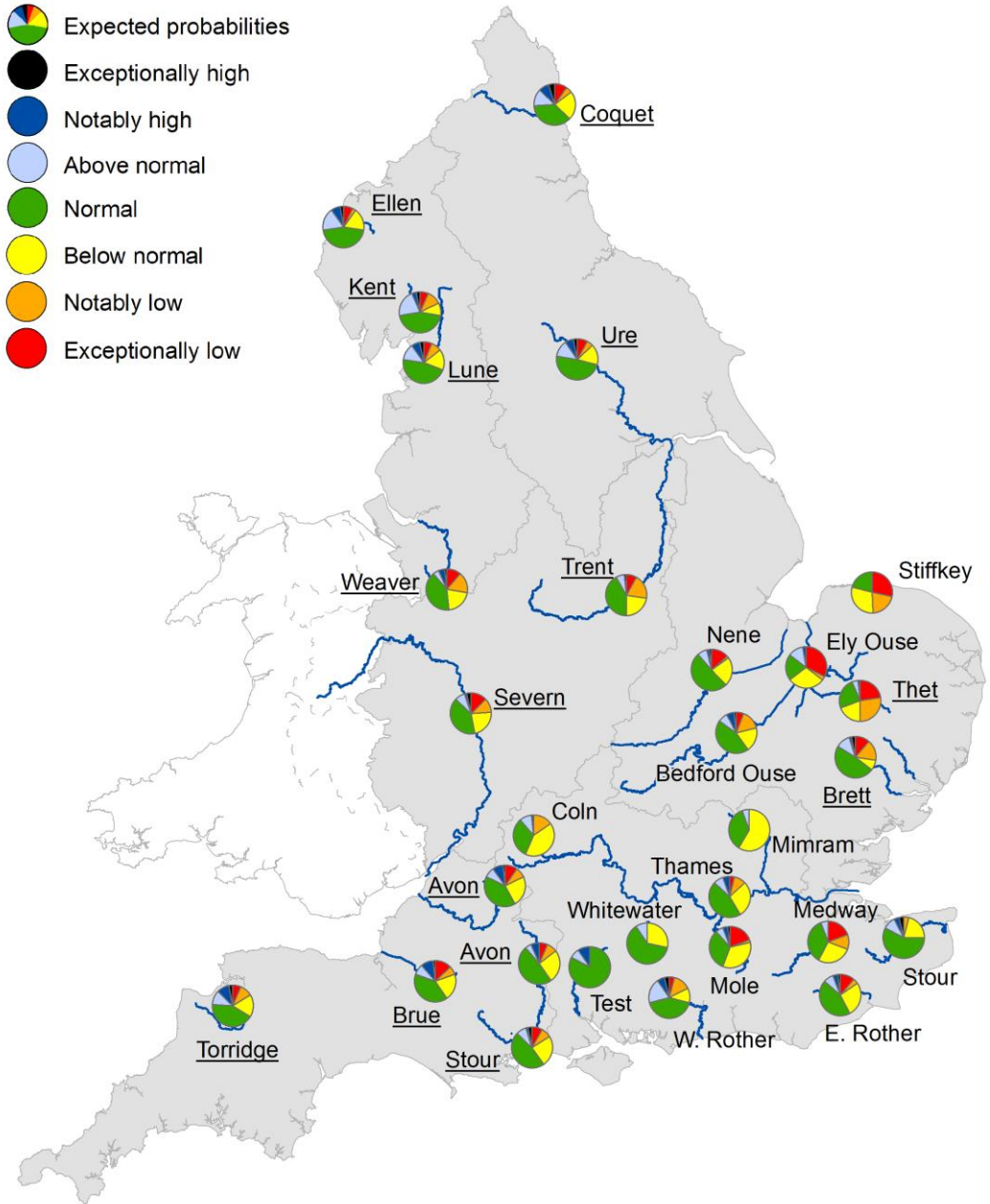
(Source: UK Centre for Ecology and Hydrology, Environment Agency)

Figure 7.3: Probabilistic ensemble projections of river flows at key indicator sites up until the end of March 2023. Pie charts indicate probability, based on climatology, of the surface water flow at each site being e.g. exceptionally low for the time of year. Projections for underlined sites produced by CEH.



(Source: UK Centre for Ecology and Hydrology, Environment Agency).

Figure 7.4: Probabilistic ensemble projections of river flows at key indicator sites up until the end of September 2023. Pie charts indicate probability, based on climatology, of the surface water flow at each site being e.g. exceptionally low for the time of year. Projections for underlined sites produced by CEH.

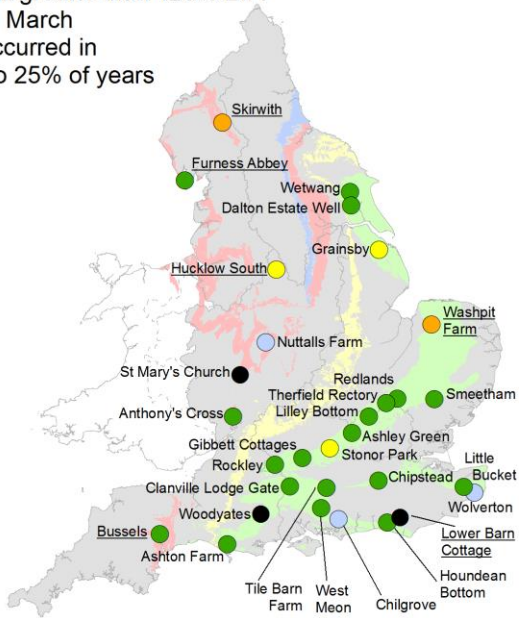


(Source: UK Centre for Ecology and Hydrology, Environment Agency).

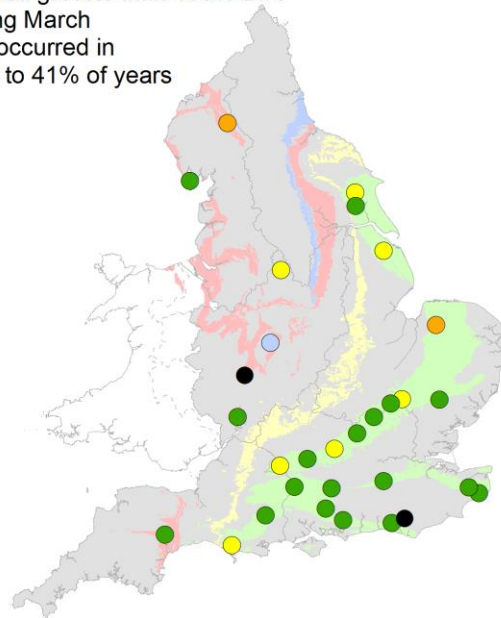
## 7.2 Groundwater

Figure 7.5: Projected groundwater levels at key indicator sites at the end of March 2023. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average during March 2023. Rainfall statistics based on occurrence in the historic record since 1891. Projections for underlined sites produced by BGS.

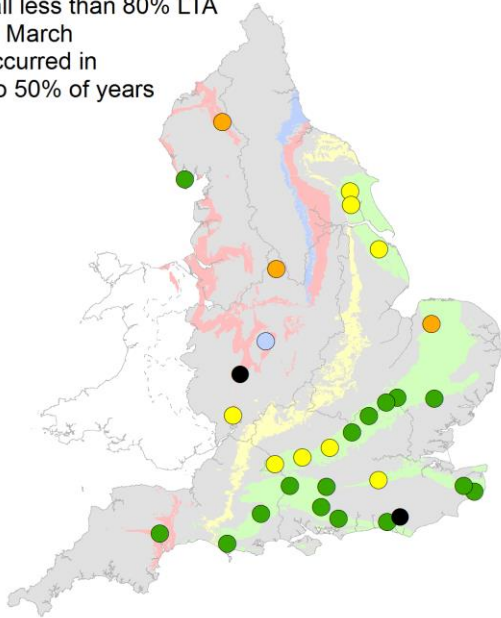
Rainfall greater than 120% LTA during March has occurred in 22% to 25% of years



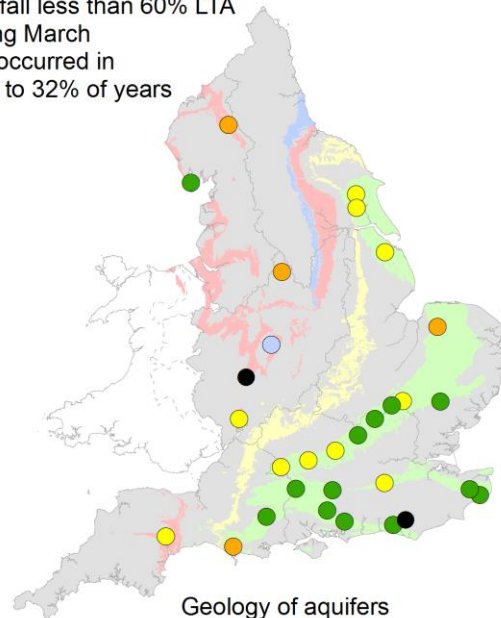
Rainfall greater than 100% LTA during March has occurred in 33% to 41% of years



Rainfall less than 80% LTA during March has occurred in 43% to 50% of years



Rainfall less than 60% LTA during March has occurred in 25% to 32% of years



● Exceptionally high   ● Notably high   ● Above normal   ● Normal  
● Below normal   ● Notably low   ● Exceptionally low   ○ No data

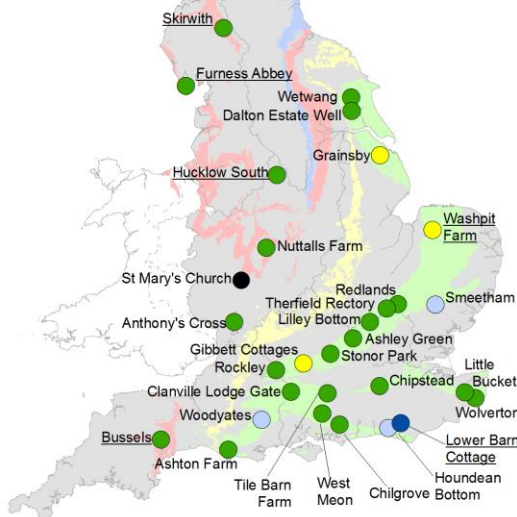
Geology of aquifers  
 ■ Chalk  
 ■ Jurassic limestone  
 ■ Magnesian limestone  
 ■ Permo-Triassic sandstones

(Source: Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum BGS © NERC. Crown copyright all rights reserved. Environment Agency 100024198, 2023.

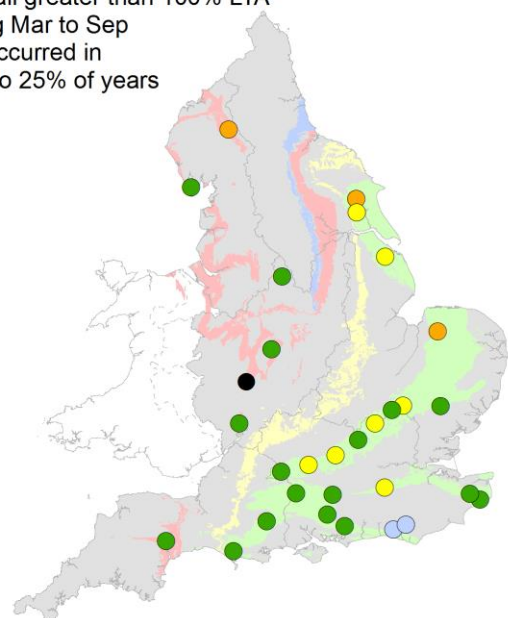


Figure 7.6: Projected groundwater levels at key indicator sites at the end of September 2023. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall between March 2023 and September 2023. Rainfall statistics based on occurrence in the historic record since 1891. Projections for underlined sites produced by BGS.

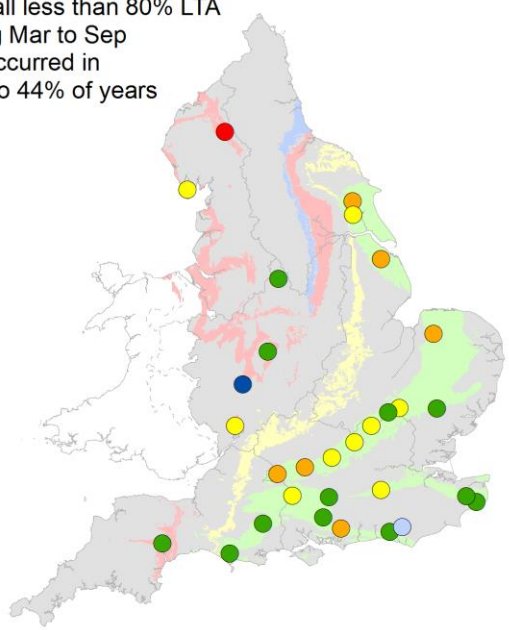
Rainfall greater than 120% LTA during Mar to Sep has occurred in 1% to 5% of years



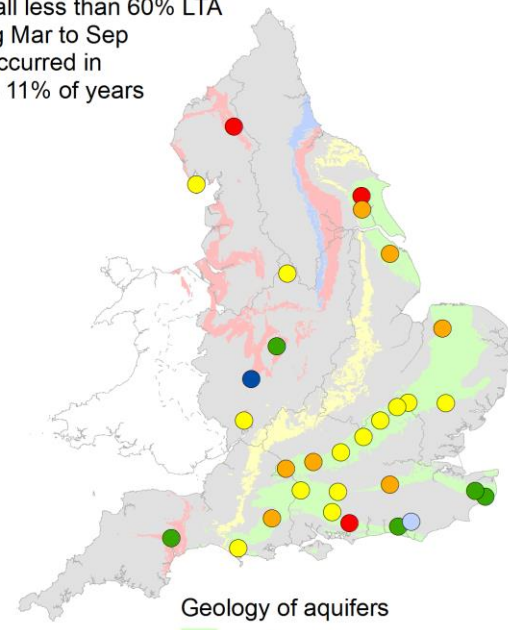
Rainfall greater than 100% LTA during Mar to Sep has occurred in 19% to 25% of years



Rainfall less than 80% LTA during Mar to Sep has occurred in 36% to 44% of years



Rainfall less than 60% LTA during Mar to Sep has occurred in 3% to 11% of years



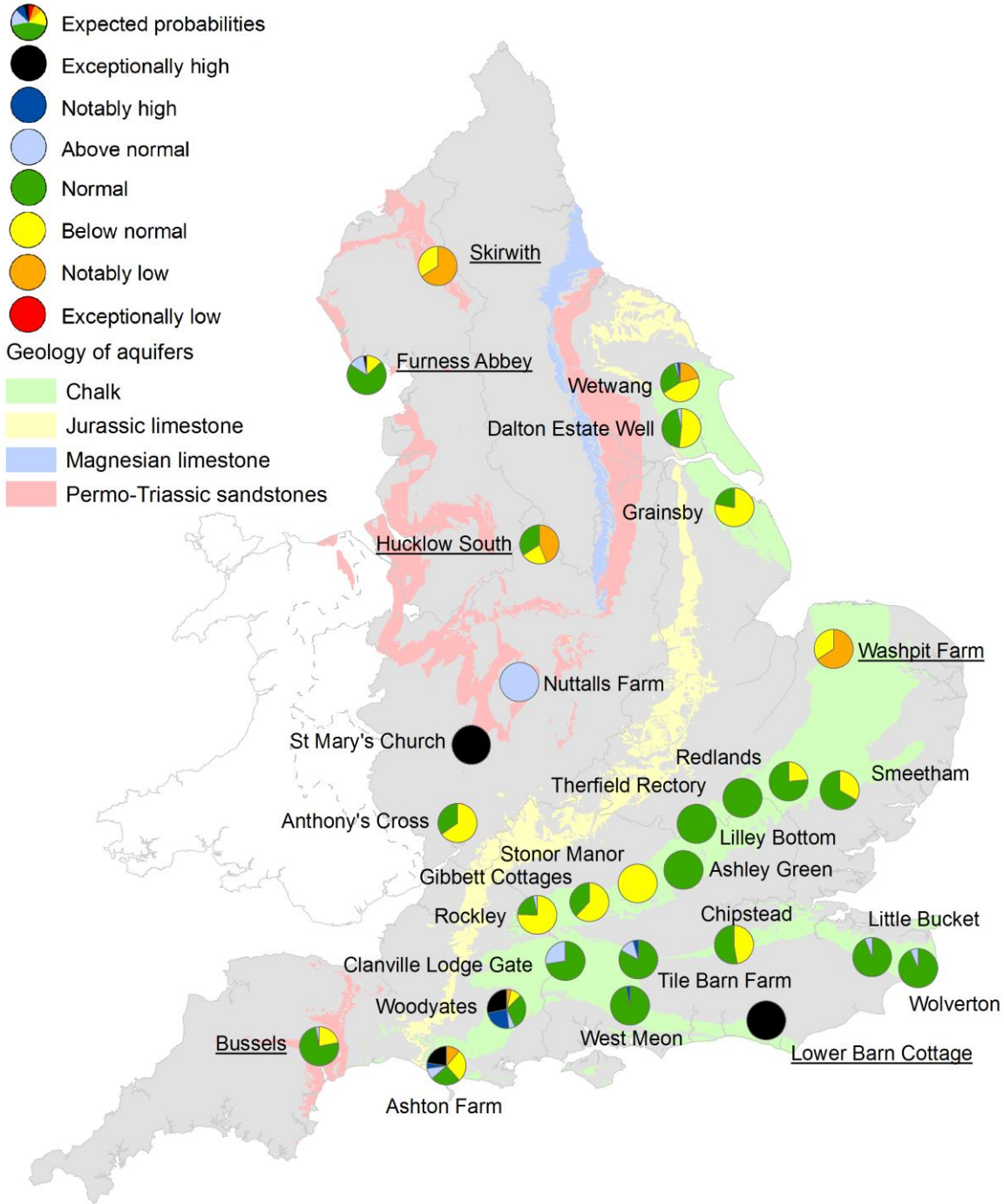
Geology of aquifers

- Chalk
- Jurassic limestone
- Magnesian limestone
- Permo-Triassic sandstones

Exceptionally high  
  Notably high  
  Above normal  
  Normal  
  Below normal  
  Notably low  
  Exceptionally low  
  No data

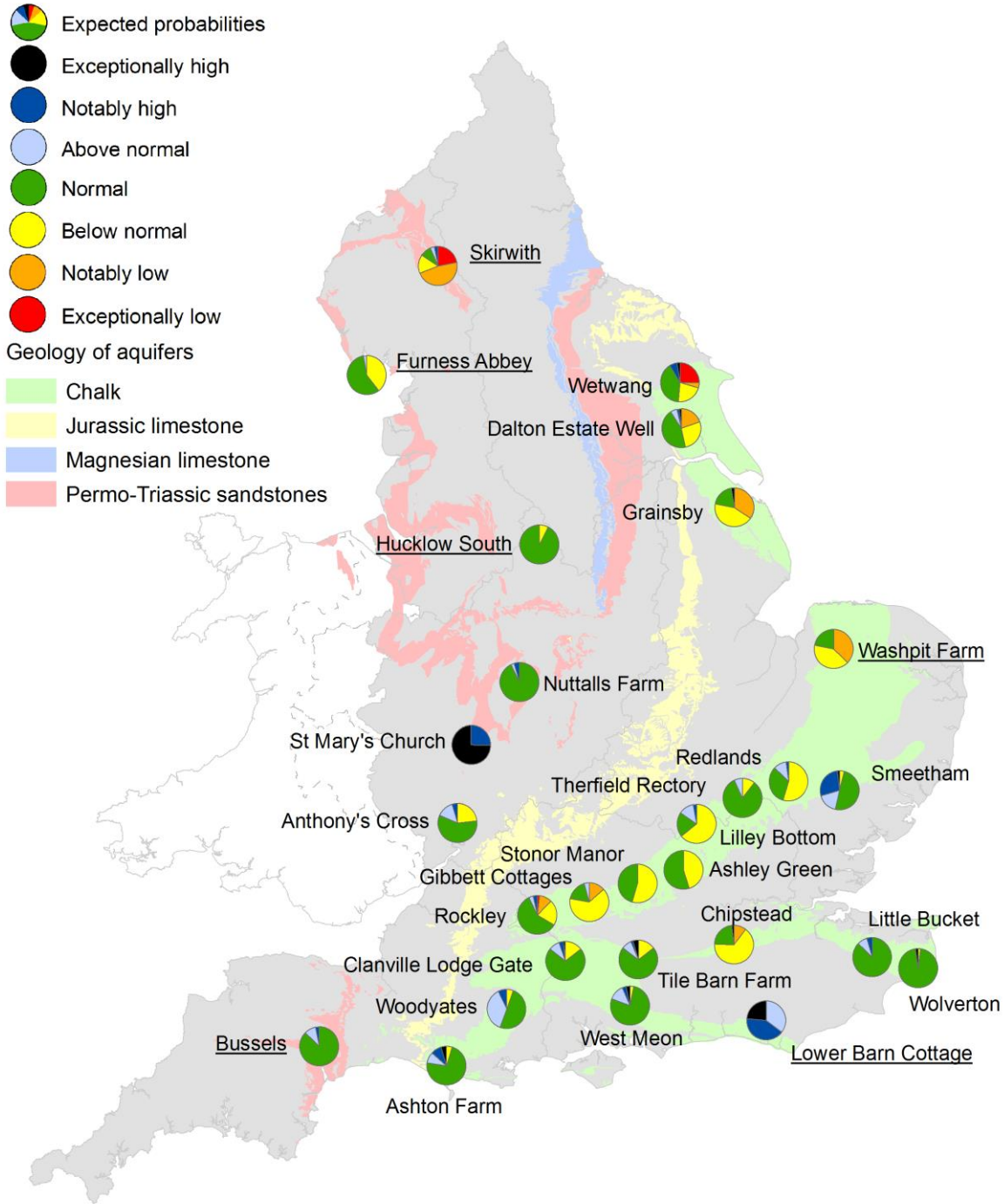
(Source: Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum BGS © NERC Crown copyright. All rights reserved. Environment Agency 100024198 2023.

Figure 7.7: Probabilistic ensemble projections of groundwater levels at key indicator sites at the end of March 2023. Pie charts indicate probability, based on climatology, of the groundwater level at each site being e.g. exceptionally low for the time of year. Projections for underlined sites produced by BGS.



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Figure 7.8: Probabilistic ensemble projections of groundwater levels at key indicator sites at the end of September 2023. Pie charts indicate probability, based on climatology, of the groundwater level at each site being e.g. exceptionally low for the time of year. Projections for underlined sites produced by BGS.



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## 8 Glossary

### 8.1 Terminology

#### **Aquifer**

A geological formation able to store and transmit water.

#### **Areal average rainfall**

The estimated average depth of rainfall over a defined area. Expressed in depth of water (mm).

#### **Artesian**

The condition where the groundwater level is above ground surface but is prevented from rising to this level by an overlying continuous low permeability layer, such as clay.

#### **Artesian borehole**

Borehole where the level of groundwater is above the top of the borehole and groundwater flows out of the borehole when unsealed.

#### **Cumecs**

Cubic metres per second ( $\text{m}^3\text{s}^{-1}$  or  $\text{m}^3/\text{s}$ ).

#### **Effective rainfall**

The rainfall available to percolate into the soil or produce river flow. Expressed in depth of water (mm).

#### **Flood alert and flood warning**

Three levels of warnings may be issued by the Environment Agency. Flood Alerts indicate flooding is possible. Flood Warnings indicate flooding is expected. Severe Flood Warnings indicate severe flooding.

#### **Groundwater**

The water found in an aquifer.

#### **Long term average (LTA)**

The arithmetic mean calculated from the historic record, usually based on the period 1961-1990. However, the period used may vary by parameter being reported on (see figure captions for details).

## **mAOD**

Metres above ordnance datum (mean sea level at Newlyn Cornwall).

## **MORECS**

Met Office Rainfall and Evaporation Calculation System. Met Office service providing real time calculation of evapotranspiration, soil moisture deficit and effective rainfall on a 40 x 40 km grid.

## **Naturalised flow**

River flow with the impacts of artificial influences removed. Artificial influences may include abstractions, discharges, transfers, augmentation and impoundments.

## **NCIC**

National Climate Information Centre. NCIC area monthly rainfall totals are derived using the Met Office 5 km gridded dataset, which uses rain gauge observations.

## **Recharge**

The process of increasing the water stored in the saturated zone of an aquifer. Expressed in depth of water (mm).

## **Reservoir gross capacity**

The total capacity of a reservoir.

## **Reservoir live capacity**

The capacity of the reservoir that is normally usable for storage to meet established reservoir operating requirements. This excludes any capacity not available for use (e.g. storage held back for emergency services, operating agreements or physical restrictions). May also be referred to as 'net' or 'deployable' capacity.

## **Soil moisture deficit (SMD)**

The difference between the amount of water actually in the soil and the amount of water the soil can hold. Expressed in depth of water (mm).

## 8.2 Categories

**Exceptionally high:** Value likely to fall within this band 5% of the time.

**Notably high:** Value likely to fall within this band 8% of the time.

**Above normal:** Value likely to fall within this band 15% of the time.

**Normal:** Value likely to fall within this band 44% of the time.

**Below normal:** Value likely to fall within this band 15% of the time.

**Notably low:** Value likely to fall within this band 8% of the time.

**Exceptionally low:** Value likely to fall within this band 5% of the time.

## 8.3 Geographic regions

Throughout this report regions of England are used to group Environment Agency areas together. Below the areas in each region are listed, and Figure 8.1 shows the geographical extent of these regions.

**East includes:** Cambridgeshire and Bedfordshire, Lincolnshire and Northamptonshire, and Essex, Norfolk and Suffolk areas.

**South east includes:** Solent and South Downs, Hertfordshire and North London, Thames, and Kent and South London areas.

**South west includes:** Devon and Cornwall, and Wessex areas.

**Central includes:** Shropshire, Herefordshire, Worcestershire and Gloucestershire, Staffordshire, Warwickshire and West Midlands, and Derbyshire, Nottinghamshire and Leicestershire areas.

**North west includes:** Cumbria and Lancashire, and Greater Manchester, Merseyside and Cheshire areas.

**North east includes:** Yorkshire, and Northumberland Durham and Tees areas.

Figure 8.1: Geographic regions



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## 9 Appendices

### 9.1 Rainfall table

Region	Feb 2023 rainfall % of long term average 1961 to 1990	Feb 2023 band	Dec 2022 to February 2023 cumulative band	Sep 2022 to February 2023 cumulative band	Mar 2022 to February 2023 cumulative band
East England	21	Exceptionally Low	Below normal	Normal	Notably low
Central England	17	Exceptionally Low	Below normal	Normal	Notably low
North-east England	42	Notably Low	Below normal	Normal	Notably low
North-west England	46	Below Normal	Normal	Normal	Below normal
South-east England	14	Exceptionally Low	Normal	Above normal	Normal
South-west England	20	Notably Low	Normal	Above normal	Normal
England	27	Notably Low	Normal	Normal	Below normal



## 9.2 River flows table

Geographic area	Site name	River	Feb 2023 band	Jan 2023 band
East	Burnham	Burn	Below normal	Below normal
East	Claypole	Upper Witham	Below normal	Normal
East	Colney	Yare	Notably low	Normal
East	Denver	Ely Ouse	Notably low	Normal
East	Dernford	Cam	Below normal	
East	Louth Weir	Lud	Below normal	Normal
East	Offord	Bedford Ouse	Below normal	Normal
East	Springfield	Chelmer	Below normal	Above normal
East	Stowmarket	Gipping	Notably low	Normal
East	Upton Mill	Nene	Notably low	Normal
Central	Bewdley	Severn	Exceptionally low	Normal
Central	Derby St Marys	Derwent	Exceptionally low	Notably high
Central	Evesham	Avon	Notably low	Normal
Central	Marston-on-dove	Dove	Exceptionally low	Above normal
Central	North Muskham	Trent	Exceptionally low	Normal
North East	Buttercrambe	Derwent	Notably low	Normal

North East	Crakehill Topcliffe	Swale	Exceptionally low	Above normal
North East	Heaton Mill	Till	Notably low	Normal
North East	Doncaster	Don	Notably low	Above normal
North East	Haydon Bridge	South Tyne	Below normal	Normal
North East	Tadcaster	Wharfe	Normal	Above normal
North East	Stanhope	Wear	Below normal	Notably high
North West	Ashton Weir	Mersey	No data	No data
North West	Caton	Lune	Normal	Notably high
North West	Ouse Bridge	Derwent	Below normal	Notably high
North West	Pooley Bridge	Eamont	Notably low	Exceptionally high
North West	St Michaels	Wyre	Below normal	Notably high
North West	Ashbrook	Weaver	Notably low	Notably high
South East	Allbrook and Highbridge	Itchen	Above normal	Notably high
South East	Feildes Weir	Lee	Below normal	Above normal
South East	Hansteads	Ver	Normal	Above normal
South East	Hawley	Darent	Below normal	Above normal
South East	Horton	Great Stour	Below normal	Above normal
South East	Kingston	Thames	Notably low	Normal
South East	Lechlade	Leach	Below normal	Above normal

South East	Teston and Farleigh	Medway	Notably low	Above normal
South East	Marlborough	Kennet	Normal	Above normal
South East	Udiam	Rother	Notably low	Notably high
South East	Ardingley Gs	Ouse	Notably low	Normal
South East	Princes Marsh Gs	Rother	Below normal	Exceptionally high
South West	Amesbury	Upper Avon	Normal	Notably high
South West	Bathford	Avon	Exceptionally low	Notably high
South West	Bishops Tull	Tone	Exceptionally low	Exceptionally high
South West	East Stoke	Frome	Normal	Exceptionally high
South West	Great Somerford	Avon	Exceptionally low	Exceptionally high
South West	Gunnislake	Tamar	Exceptionally low	Above normal
South West	Hammoon	Middle Stour	Exceptionally low	Exceptionally high
South West	Knapp Mill	Avon	Normal	Notably high
South West	Lovington	Upper Brue	Exceptionally low	Exceptionally high
South West	Thorverton	Exe	No data	Exceptionally high
South West	Torrington	Torridge	Notably low	Notably high

South West	Truro	Kenwyn	Exceptionally low	Above normal
South West	Austins Bridge	River Dart	Exceptionally low	Exceptionally high
EA Wales	Manley Hall	Dee	Exceptionally low	Notably high
EA Wales	Redbrook	Wye	Exceptionally low	Above normal

### 9.3 Groundwater table

Geographic area	Site name	Aquifer	End of Feb 2023 band	End of Jan 2023 band
East	Grainsby	Grimsby Ancholme Louth Chalk	Normal	Normal
East	Redlands Hall (chalk)	Cam Chalk	Normal	Normal
East	Hanthorpe	Cornbrash (South)	Normal	Above normal
East	Smeetham Hall Cott.	North Essex Chalk	Normal	Normal
East	Washpit Farm Rougham	North West Norfolk Chalk	Below normal	Below normal
Central	Four Crosses	Grimsby Ancholme Louth Limestone	Below normal	Below normal
Central	Weir Farm (sandstone)	Bridgnorth Sandstone Formation	Above normal	Notably high
Central	Coxmoor	Permo Triassic Sandstone	Above normal	Above normal
Central	Crossley Hill	Permo Triassic Sandstone	Normal	Normal
North East	Dalton Estate Well	Hull & East Riding Chalk	Normal	Normal
North East	Aycliffe Nra2	Skerne Magnesian Limestone	Normal	Above normal
North East	Wetwang	Hull & East Riding Chalk	Below normal	Normal
North West	Priors Heyes	West Cheshire Permo-Triassic Sandstone	Exceptionally high	Exceptionally high

North West	Skirwith (sandstone)	Carlisle Basin Permo-Triassic sandstone	Normal	Above normal
North West	Lea Lane	Fylde Permo-Triassic Sandstone	Below normal	Below normal
South East	Chilgrove (chalk)	Chichester-Worthing-Portsdown Chalk	Normal	Notably high
South East	Clanville Gate Gwl	River Test Chalk	Normal	Above normal
South East	Houndean Bottom Gwl	Brighton Chalk Block	Normal	Above normal
South East	Little Bucket (chalk)	East Kent Chalk - Stour	Above normal	Above normal
South East	Jackaments Bottom (jurassic Limestone)	Burford Oolitic Limestone (Inferior)	Exceptionally low	Normal
South East	Ashley Green Stw Obh	Mid-Chilterns Chalk	Normal	Normal
South East	Stonor Park (chalk)	South-West Chilterns Chalk	Below normal	Below normal
South East	Chipstead Gwl	Epsom North Downs Chalk	Normal	Normal
South West	Tilshead	Upper Hampshire Avon Chalk	Normal	Notably high
South West	Woodleys No1	Otterton Sandstone Formation	Normal	Normal
South West	Woodyates	Dorset Stour Chalk	Normal	Above normal

## 9.4 Reservoir table

Geographic region	% Full	Average comparison
East England	85	Below average
Central England	90	Below average
North-east England	90	Below average
North-west England	83	Below average
South-east England	94	Above average
South-west England	75	Below average
England	87	Below average