

Monthly water situation report: England

1 Summary - January 2024

England experienced 85mm of rainfall during January which is a noticeable reduction when compared to the preceding months although still above average. Five catchments: Wear, Don, Calder, Derwent, and Mersey and Irwell, reported the wettest 6 month August to January period since records began in 1871. Soil Moisture Deficits (SMD) across the county remained close to zero for a third consecutive month. River flows decreased at almost two-thirds of reporting sites, however flows at all sites were classed as normal or higher for the time of year. Groundwater levels increased throughout England with almost all sites classed as normal or higher by the end of the month. Almost half of reporting reservoirs experienced a decrease in storage in January, most reservoirs are classed as normal or higher for the time of year.

1.1 Rainfall

The January rainfall total for England was 85mm which represents 106% of the 1961 to 1990 LTA (Long Term Average) for the time of year (102% of the 1991 to 2020 LTA). All catchments throughout the country received above average rainfall during January. The wettest hydrological areas relative to the LTA were the Kent, and Wyre and Lune catchments in the south-east and north-west of England, which received 164% and 163% of LTA rainfall respectively. The driest hydrological areas were reported in the south-west of the country with North Cornwall, West Cornwall, and Otter Sid Axe and Lim catchments all reporting 73% of LTA rainfall during January. (Figure 2.1)

January rainfall totals were classed as normal or higher for the time of year in all of the hydrological areas in England, with the majority of areas (85%) reporting normal rainfall totals for the month. The remaining twenty one areas (15%) located across the north and east of England, reported either above normal, or notably high rainfall during the same period. Rainfall totals at a regional scale during January, were classed as above normal in north-east and north-west England, with the remaining four geographical regions classed as normal. (Figure 2.2)

The 3-month cumulative rainfall totals for almost all areas throughout England were classed as above normal or higher. The north of the county received the greatest rainfall totals during this period with many areas classed as exceptionally high. The majority of catchments (52%) across the north and east of England, reported exceptionally high 6-month cumulative rainfall totals. Five catchments: Wear, Don, Calder, Derwent (Midlands) and Mersey and Irwell, reported the wettest 6-month period since records began. The 12-month cumulative rainfall totals show only 4 hydrological areas (3%) were classed as normal, 12 (9%) as above normal, 47 (34%) as notably high, and a majority of 76 (55%) classed as exceptionally high. The Kent Catchment experienced its wettest 12-month period since records began. Notably, the Esk (Dumfries) area in the north-west of England was the only catchment to report normal rainfall throughout all accumulation periods. (Figure 2.3)

1.2 Soil moisture deficit

Soil Moisture Deficits (SMD) throughout England remained close to zero during January, continuing trends first observed towards the end of October 2023. However small increases in SMD (soils becoming drier) were observed, with several areas reporting marginal increases of around 1mm. (Figure 3.1)

Across all of England soils were close to field capacity, with all reported SMDs observed to be smaller than the LTA, leaving soils wetter than average at the end of January. (Figure 3.2)

1.3 River flows

January monthly mean river flows decreased at almost two-thirds of indicator sites when compared to the previous month. River flows at all sites were classed as normal or higher for the time of year. However, many of the rivers we report on (67%) continue to experience flows classed as either above normal or notably high for the time of year. The River Kennet at Marlborough, and River Burn at Burnham, reported the highest monthly mean flows on record for the January period (records for Marlborough and Burnham date from 1972 and 1970 respectively). (Figure 4.1)

January saw monthly mean river flows decrease at the majority (66%) of regional index sites when compared to December. However, flow increases were reported at Offord in the east of England on the River Ouse, and Kingston on the River Thames, with the resulting flows now classed as notably high and exceptionally high respectively. Despite a decrease in monthly mean flows, Carlton (River Lune) continues to be classed as notably high, alongside Marston-on-Dove (River Dove), and Haydon Bridge (South Tyne) both classed as above normal for the time of year. Horton (Great Stour) and Thorverton (River Exe) also reported a reduction in mean flow and are now classed as normal for the time of year. (Figure 4.2)

1.4 Groundwater levels

By the end of January, groundwater levels rose at over half of the indicator sites we report on. Groundwater levels at the majority of groundwater sites (96%) were classed as normal or higher by the end of the month. A quarter of indicator sites, located across north-east and south-east England, were classed as exceptionally high, with Coxmoor (Idle Torne Nottinghamshire & Doncaster Permo Triassic Sandstone) in central England reporting the highest groundwater levels for January since records began in 1990. Lea Lane in north-west England was the only site to report below normal levels by the end of the month. (Figure 5.1)

Groundwater levels at major aquifer index sites varied across January, with an equal 50% of aquifers reporting an increase and decrease in level. Dalton Estate (Hull and East Riding Chalk) was classed as exceptionally high. While Both Skirwith (Carlisle Basin Sandstone) and Stonor Park (Chalk) were classed as notably high. Chilgrove (Chichester Chalk) and Little Bucket (Stour chalk) were classed as above normal. Jackaments Bottom (Burford Jurassic Limestone) was the only location during January to be classed as normal. (Figure 5.2)

1.5 Reservoir storage

Reservoir storage throughout England varied across January, with almost half of reporting reservoirs experiencing a decrease in storage, with only a third reported an increase. By the end of the month storage at the majority of reservoirs (81%) was classed as normal or higher for the time of year. All Reservoir storage volumes at the end of January varied by less than 10% when compared to volumes observed at the end of December 2023. Refill at several reservoirs may have been impacted by either planned works or reactive maintenance. Consequently, volumes reported by: Bewl, Dee, Grafham, and the Lower Lee Group are being actively managed, and may not reflect typical storage for the time of year. (Figure 6.1)

At a regional scale, total reservoir storage increased by an average of 3% across the north-west, south-west, and south-east of England, and decreased by an average 2% in north-east, east, and central England by the end of January. (Figure 6.2)

1.6 Forward look

February began with milder and wet conditions across England. The wetter conditions will be followed by a more settled and drier period across the rest of the month although there will still be a chance of showers, which may fall as snow with the ongoing cold conditions.

For the 3 month period for the UK from February to April, there is a slightly higher than normal chance of cold conditions bringing with it an increased chance of impacts from ice, fog and snow during February and March. During this period precipitation is likely to be around average for the time of year.

1.7 Projections for river flows at key sites

By the end of March 2024, river flows in south-east, south-west, east and central England have a higher than expected chance of being above normal or higher. This is particularly true for those in groundwater fed catchments where groundwater levels are currently higher than expected for the time of year and can support river flows over the next two months.

By the end of September 2024, river flows across most of England have the greatest chance of being above normal or higher, except in the north-west where flows are more likely to be normal.

For scenario based projections of cumulative river flows at key sites by March 2024 see Figure 7.1.

For scenario based projections of cumulative river flows at key sites by September 2024 see Figure 7.2.

For probabilistic ensemble projections of cumulative river flows at key sites by March 2024 see Figure 7.3.

For probabilistic ensemble projections of cumulative river flows at key sites by September 2024 see Figure 7.4.

1.8 Projections for groundwater levels in key aquifers

By the end of March 2024, groundwater levels in east, south-east, north-west and north-east England have a greater likelihood than expected of being above normal or higher. Sites in chalk aquifers are likely to be above normal or higher. South-west and central England groundwater levels have a greater likelihood of being normal or higher.

By the end of September 2024, groundwater levels have a greater likelihood of being above normal or higher in north-west, north-east, south-east and east England. In south-west and central England, groundwater levels have a greater likelihood of being normal or higher.

For scenario based projections of groundwater levels in key aquifers in March 2024 see Figure 7.5.

For scenario based projections of groundwater levels in key aquifers in September 2024 see Figure 7.6.

For probabilistic ensemble projections of groundwater levels in key aquifers in March 2024 see Figure 7.7.

For probabilistic ensemble projections of groundwater levels in key aquifers in September 2024 see Figure 7.8.

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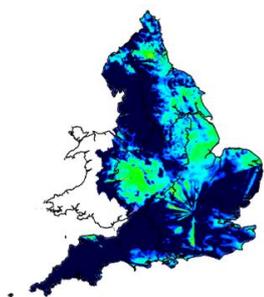
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2 Rainfall

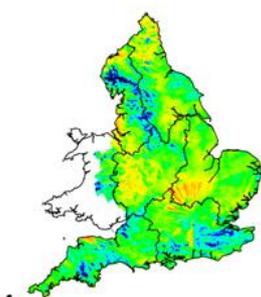
2.1 Rainfall map

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.

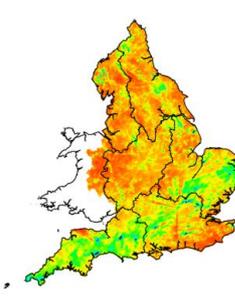
March 2023



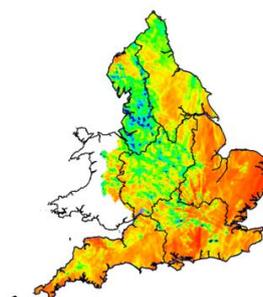
April 2023



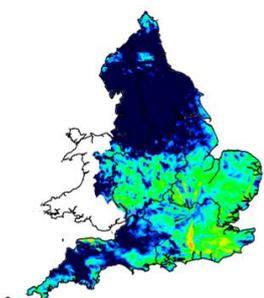
May 2023



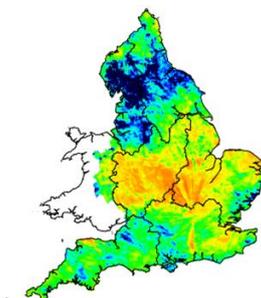
June 2023



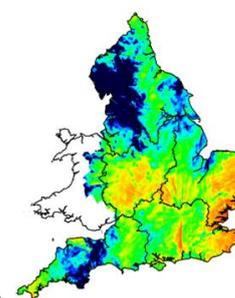
July 2023



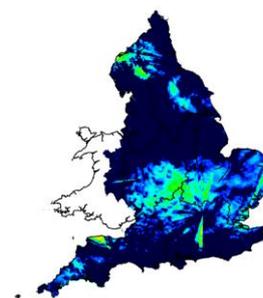
August 2023



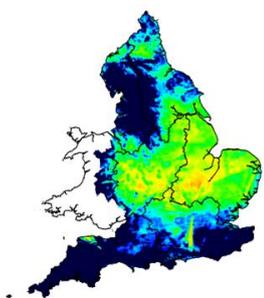
September 2023



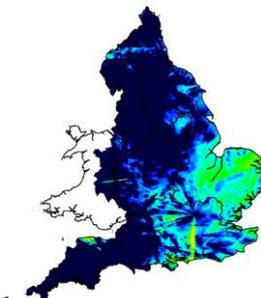
October 2023



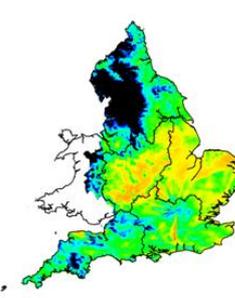
November 2023



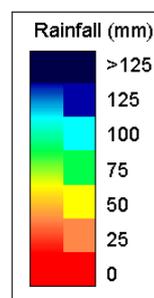
December 2023



January 2024

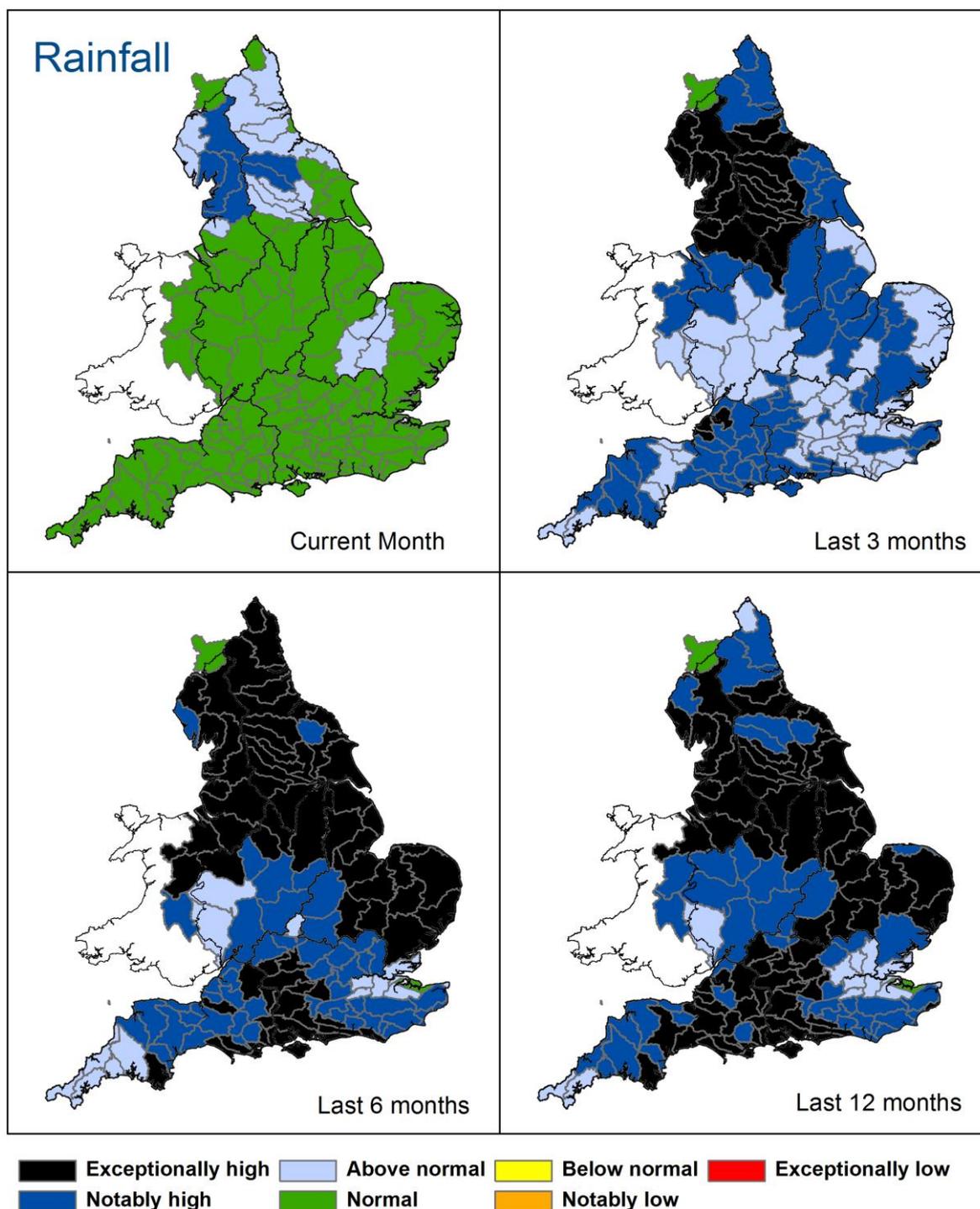


Map Legend



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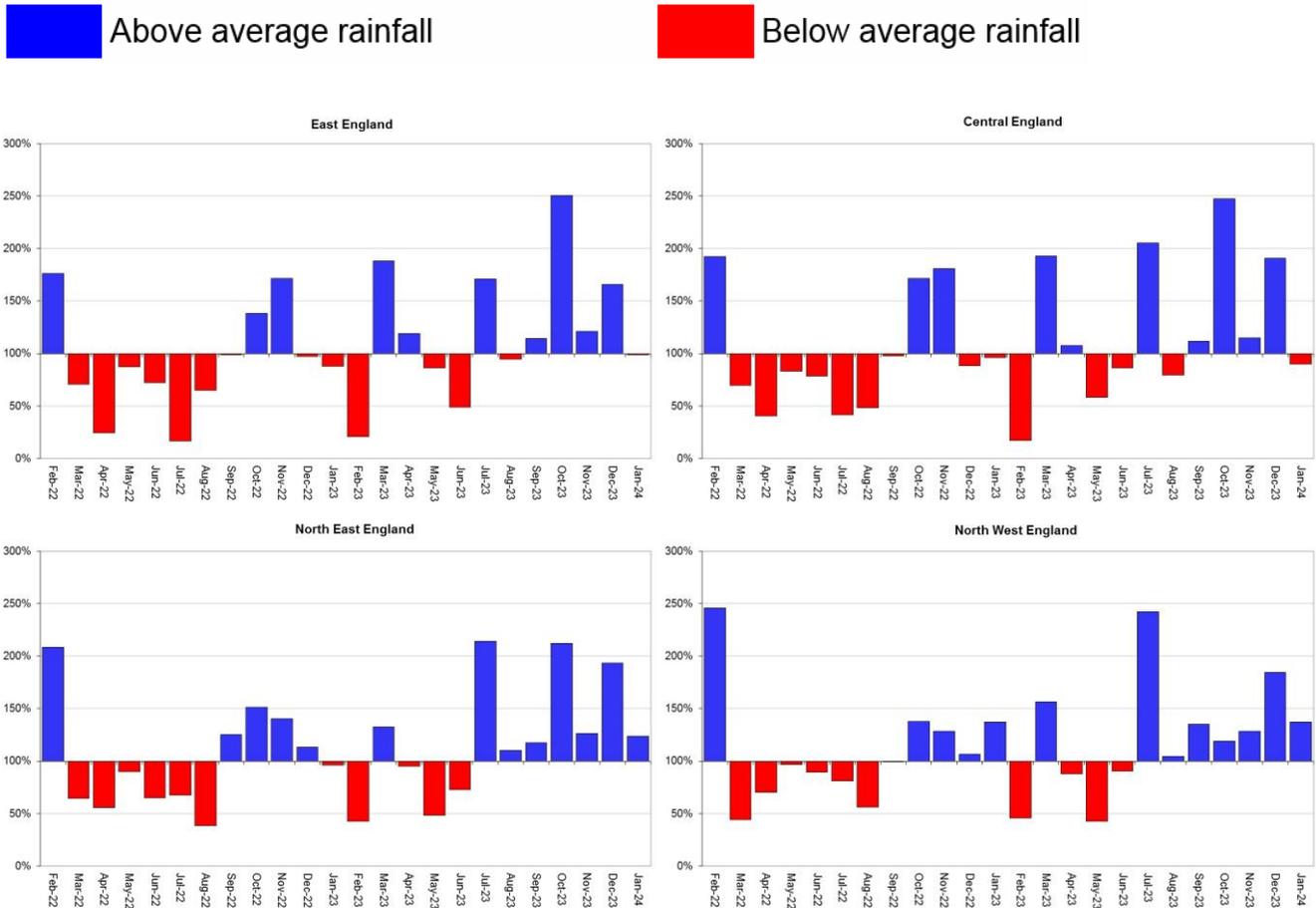
Figure 2.2: Total rainfall for hydrological areas across England for the current month (up to 31 January 2024), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals.

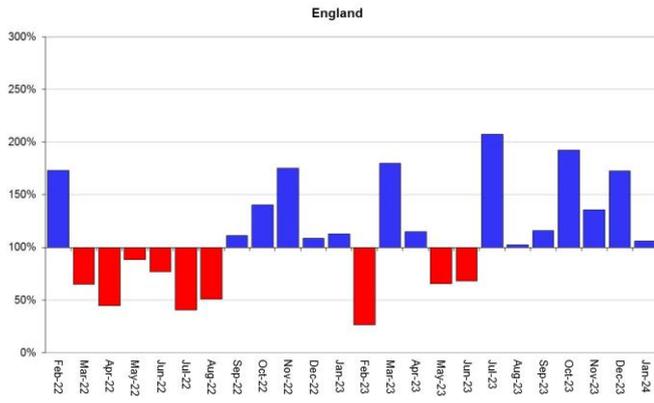
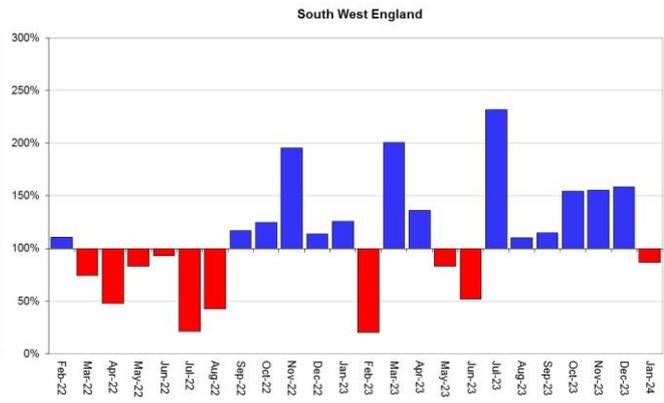
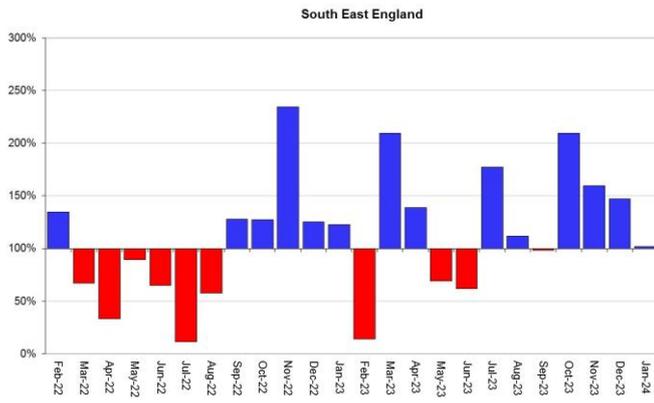


Rainfall data for 2023, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2024). Rainfall data prior to 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2024).

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.





Rainfall data for 2023, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2024). Rainfall data prior to 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2024).

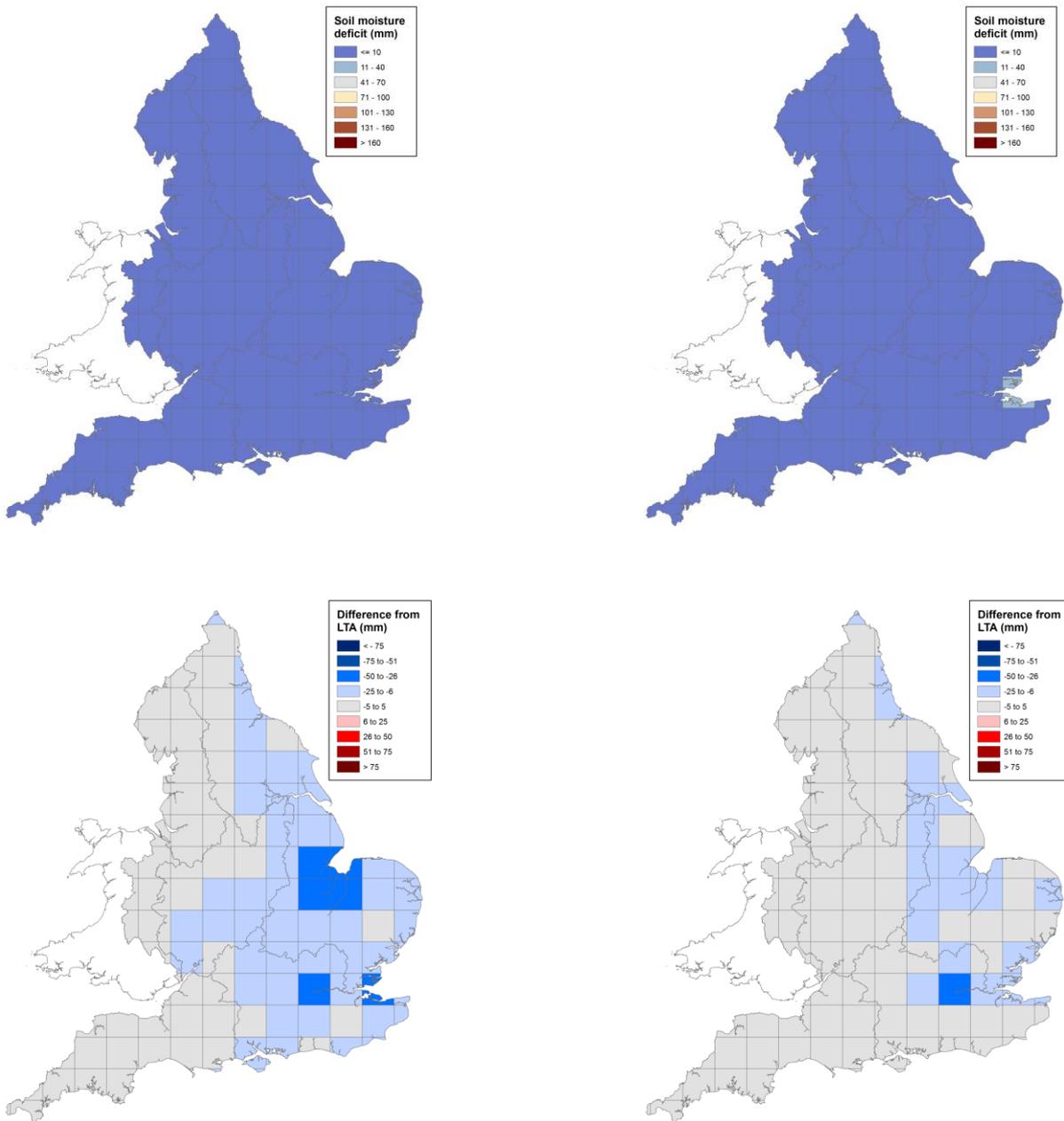
3 Soil moisture deficit

3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for weeks ending, 03 January 2024 (left panel) and 31 January 2024 (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 December 2023

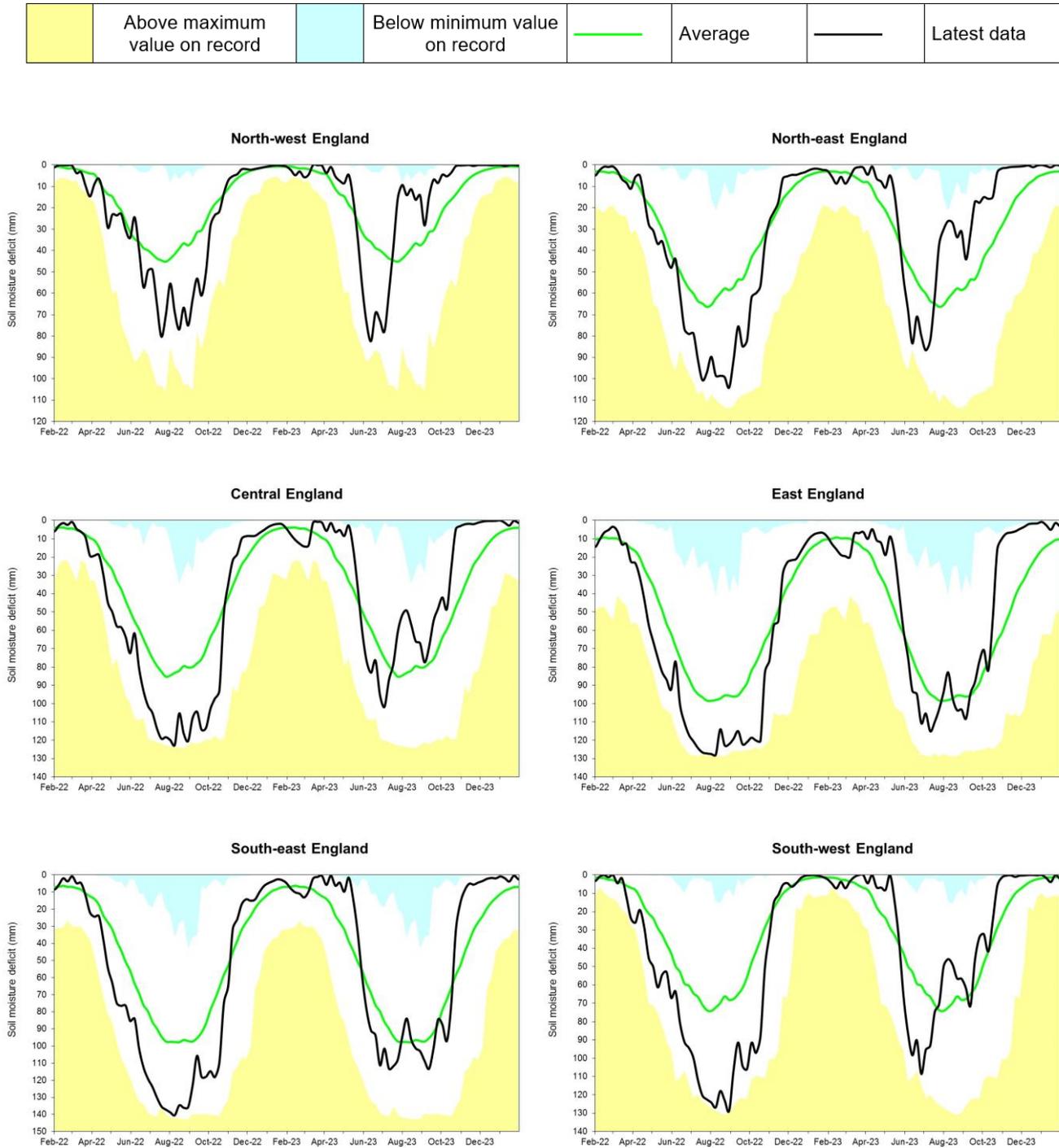
End of January 2024



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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.



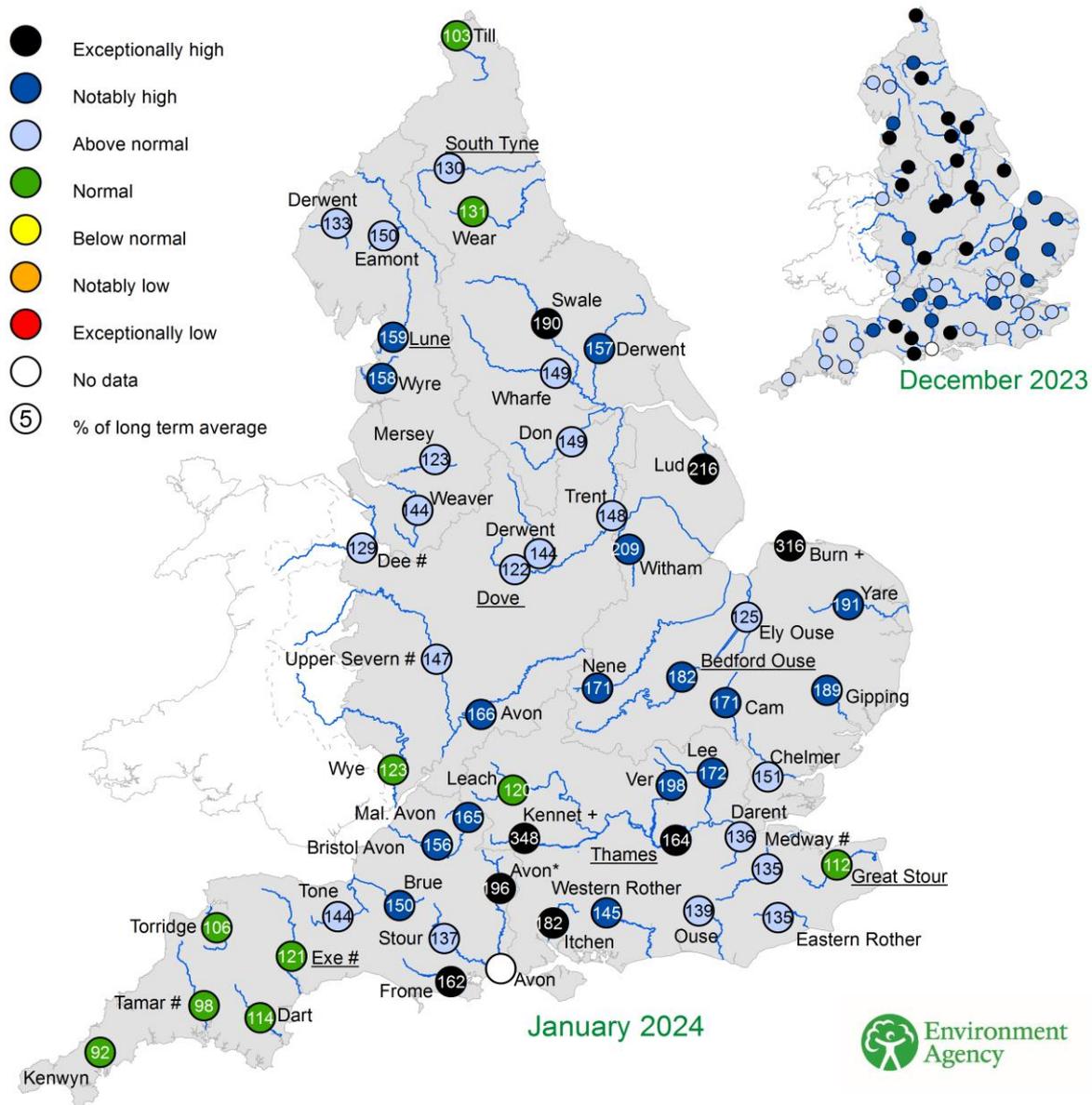
(Source: Met Office. Crown copyright, 2024).

4 River flows

4.1 River flow map

Figure 4.1: Monthly mean river flow for indicator sites for December 2023 and January 2024, expressed as a percentage of the respective long term average and classed relative to an analysis of historic December and January monthly means. Table available in the appendices with detailed information. Regional index sites are underlined and shown in the hydrographs in Figure 4.2.

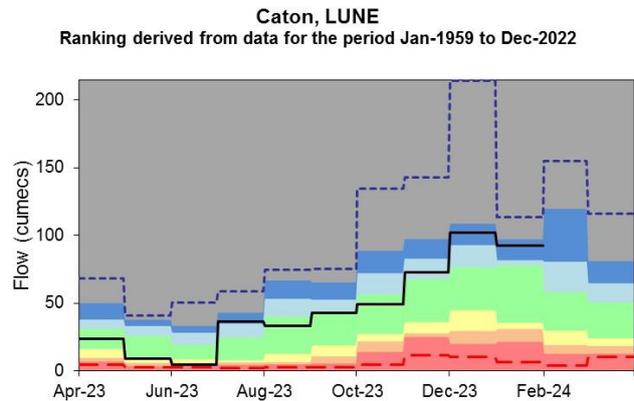
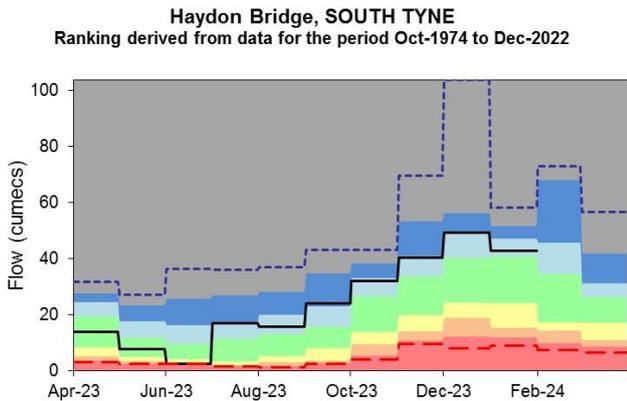
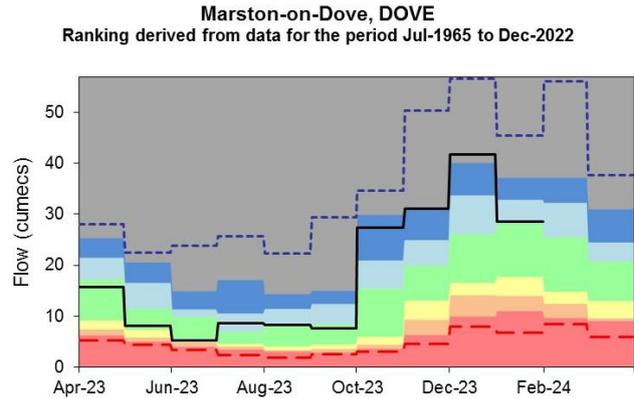
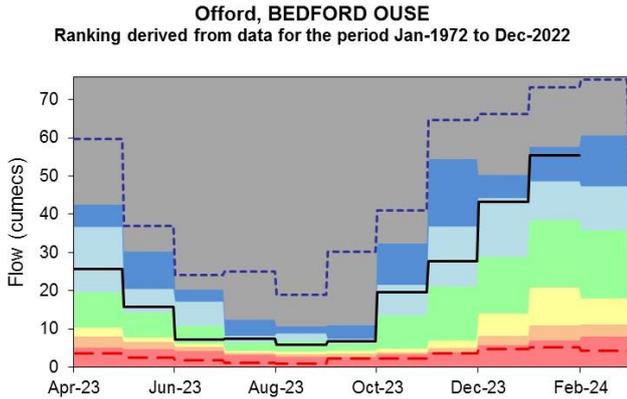
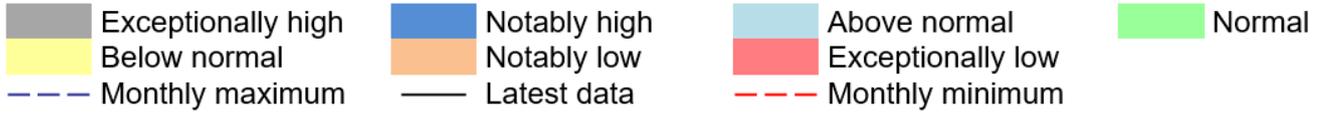
Naturalised flows are provided for the River Thames and the River Lee. +/- Monthly mean flow is the highest/lowest on record for the current month (note that record length varies between sites). * Flows may be overestimated at these sites – data should be treated with caution. # Flows may be impacted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



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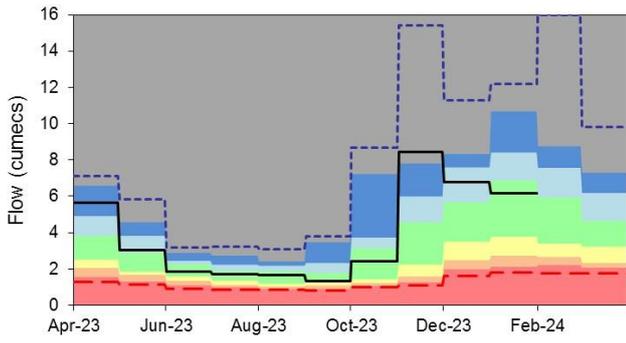
4.2 River flow charts

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.



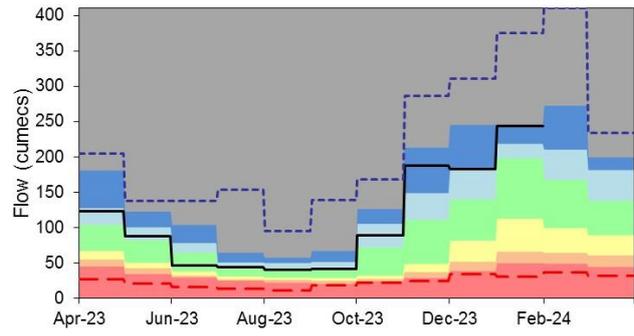
Horton, GREAT STOUR

Ranking derived from data for the period Oct-1964 to Dec-2022



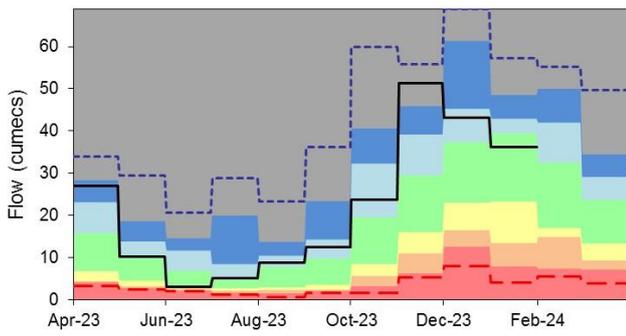
Kingston (naturalised), THAMES

Ranking derived from data for the period Jan-1951 to Dec-2022



Thorverton, EXE

Ranking derived from data for the period Apr-1956 to Dec-2022



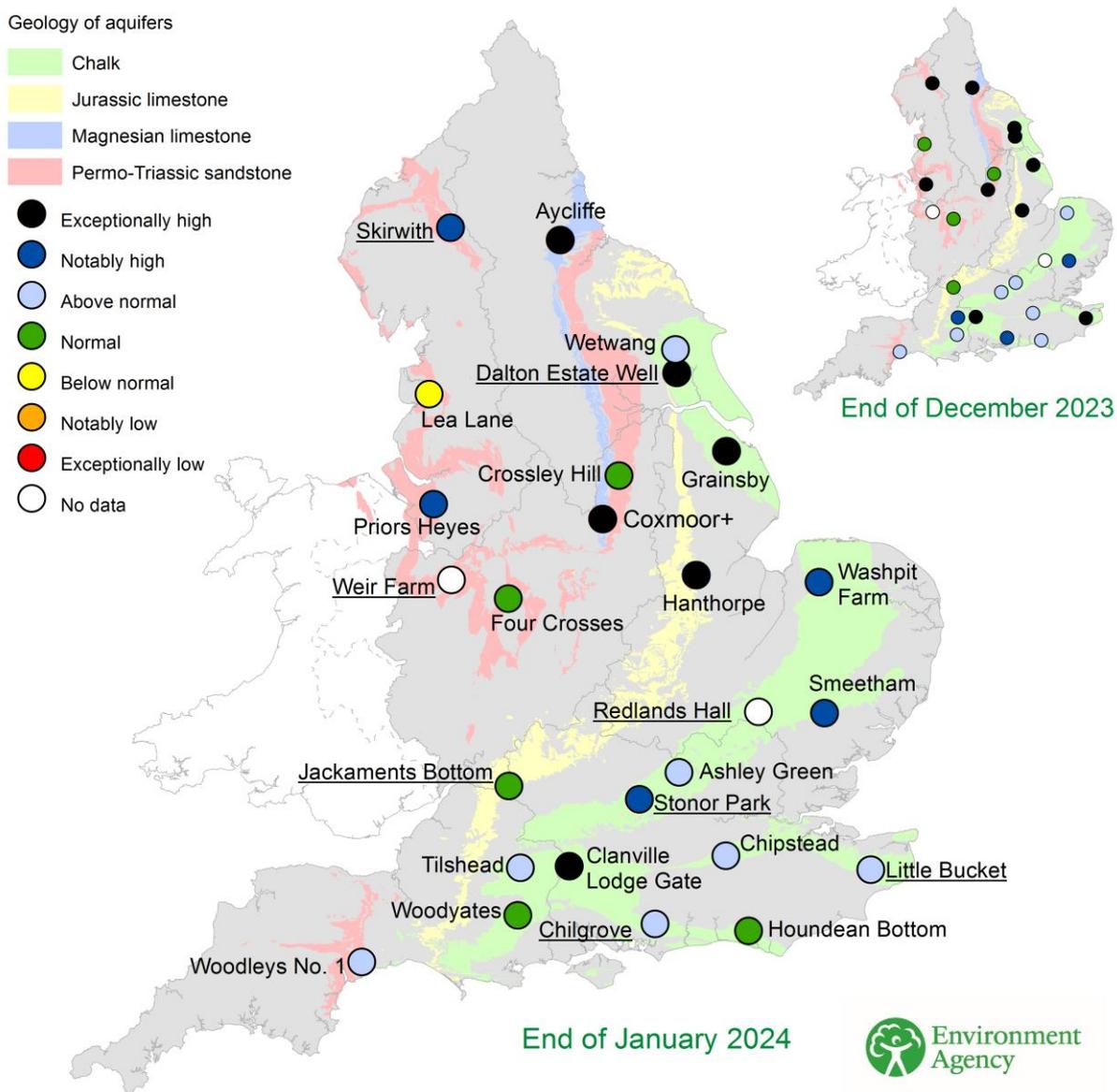
(Source: Environment Agency).

5 Groundwater levels

5.1 Groundwater levels map

Figure 5.1: Groundwater levels for indicator sites at the end of December 2023 and January 2024, classed relative to an analysis of respective historic December and January levels. Major aquifer index sites are underlined and shown in groundwater level charts in Figure 5.2.

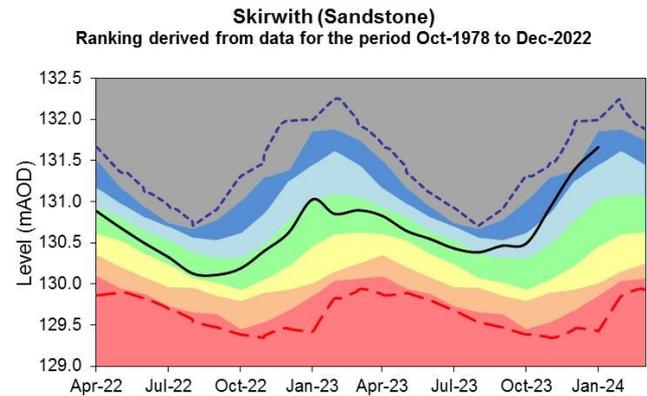
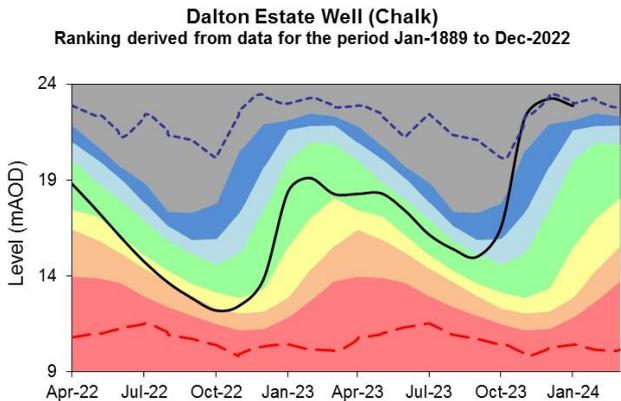
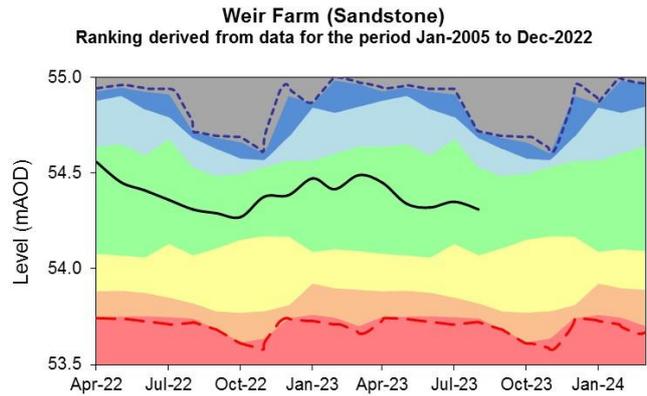
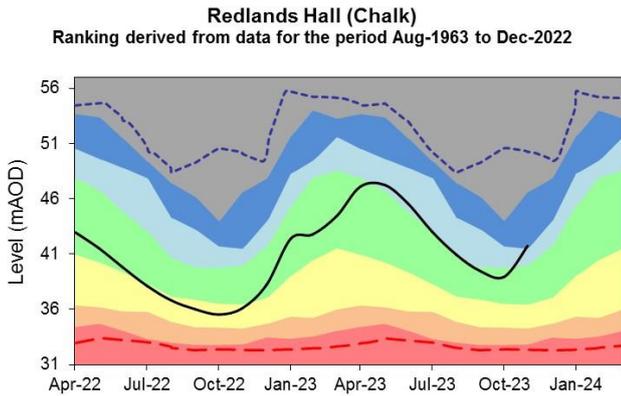
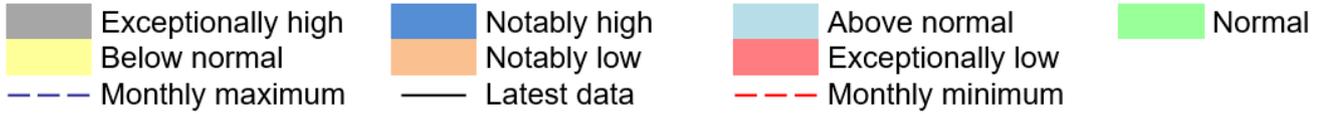
Redlands Hall and Aycliffe are manually dipped at different times during the month and so may not be fully representative of month end levels. Levels at Priors Heyes remain high compared to historic levels because the aquifer is recovering from the effects of historic abstraction. +/- End of month groundwater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

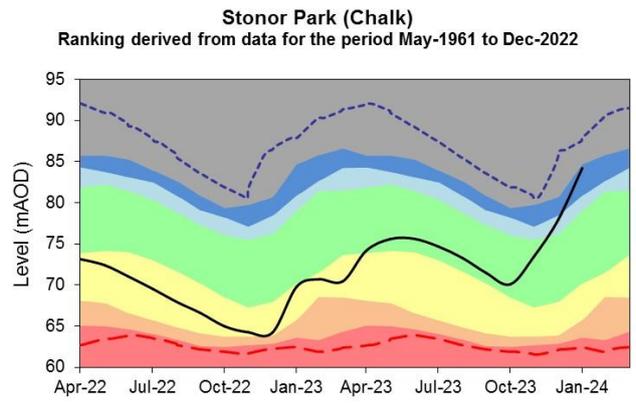
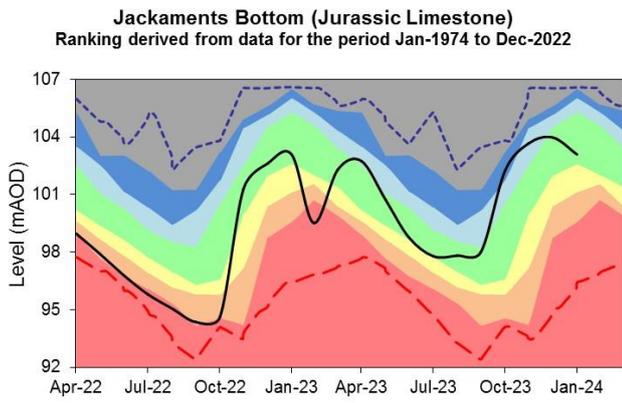
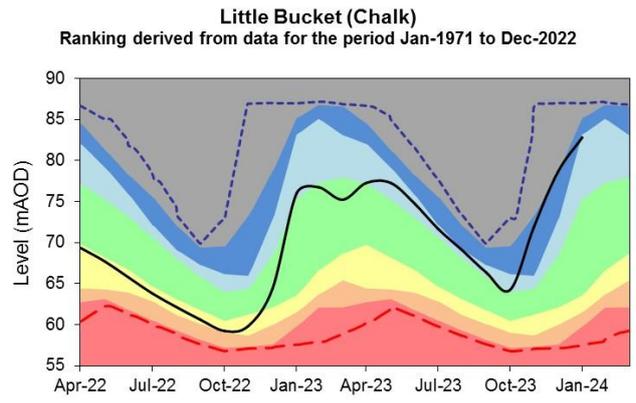
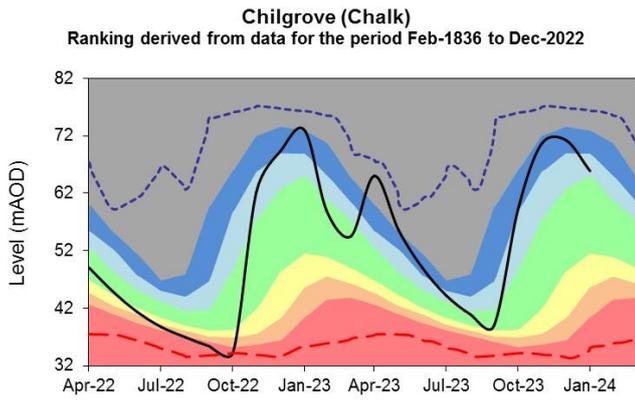


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5.2 Groundwater level charts

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.



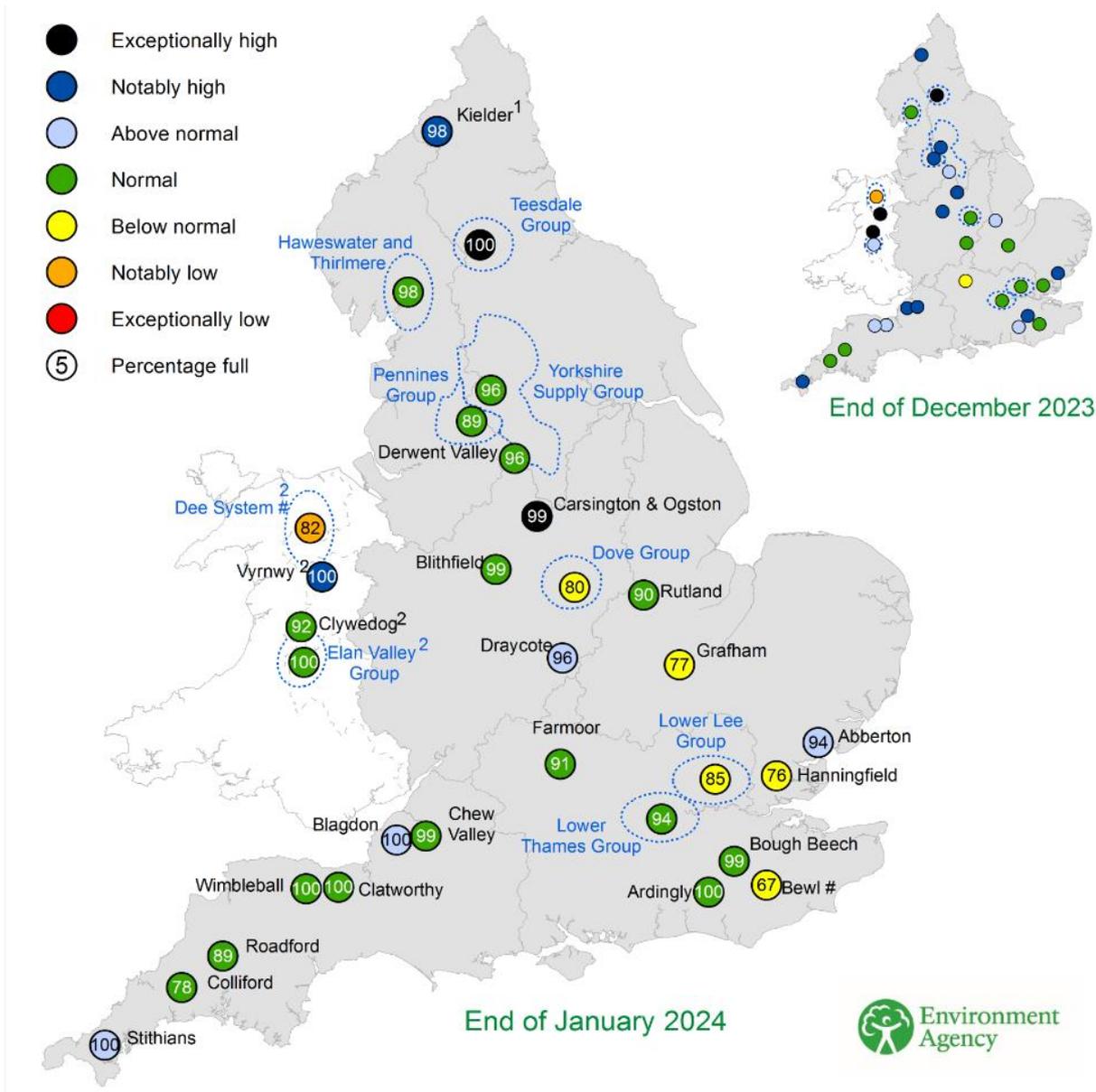


(Source: Environment Agency, 2024)

6 Reservoir storage

6.1 Reservoir storage map

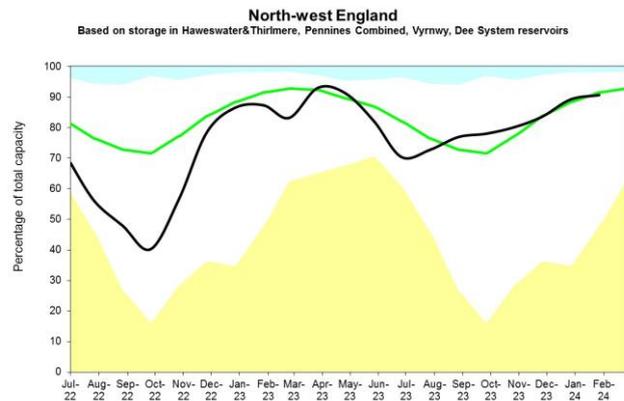
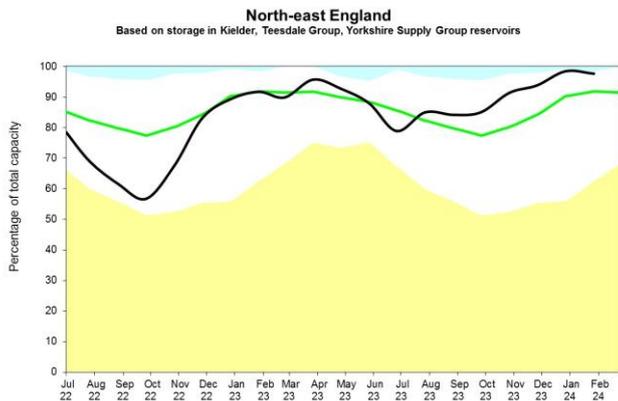
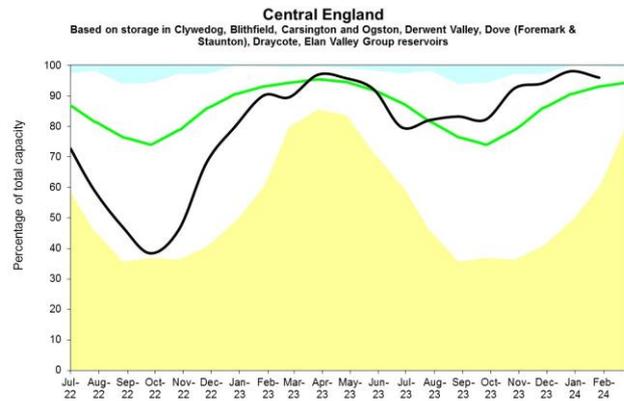
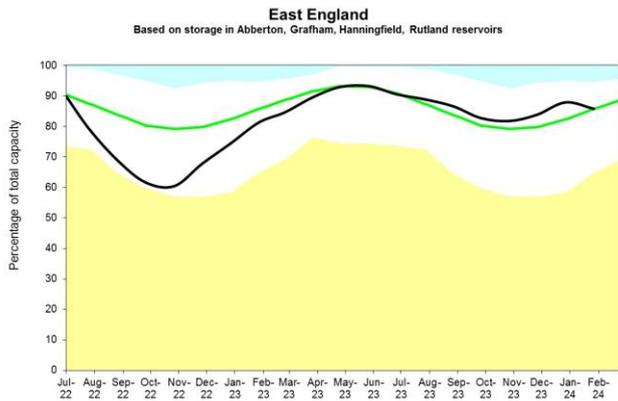
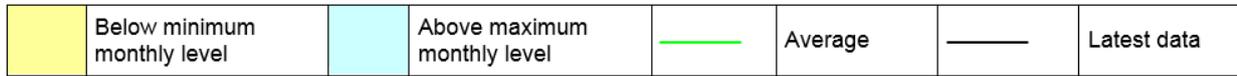
Figure 6.1: Reservoir stocks at key individual and groups of reservoirs at the end of December 2023 and January 2024 as a percentage of total capacity and classed relative to an analysis of historic December and January values respectively. Note: Classes shown may not necessarily relate to control curves 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. The Dee system has been drawn down as part of reservoir safety works which are expected to continue until 2025.

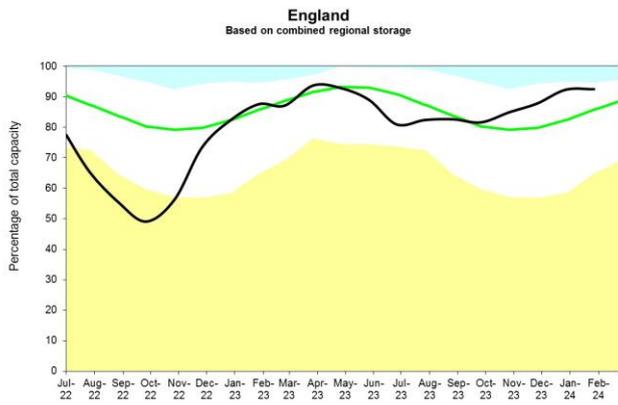
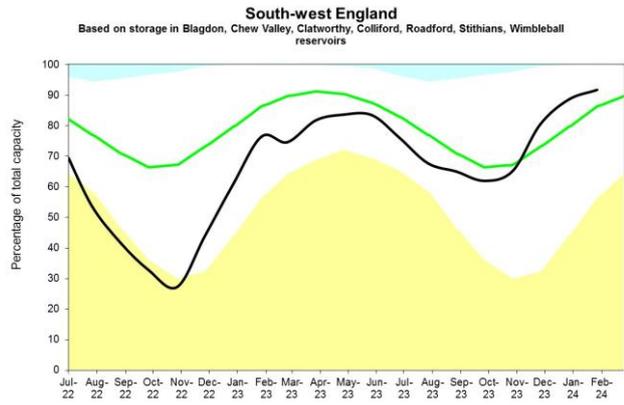
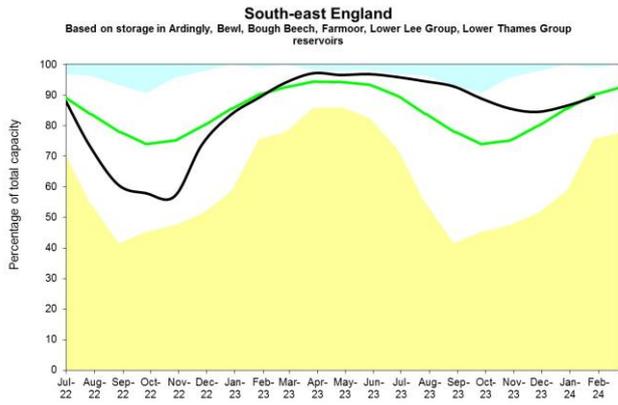


(Source: water companies). Crown copyright. All rights reserved. Environment Agency, 100024198, 2024

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.





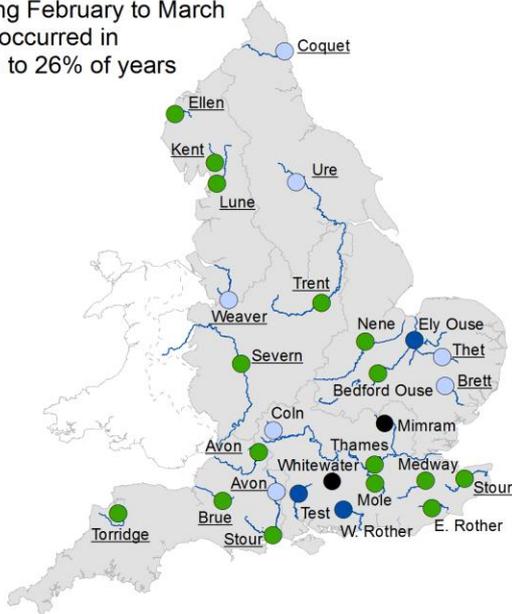
(Source: Water Companies).

7 Forward look

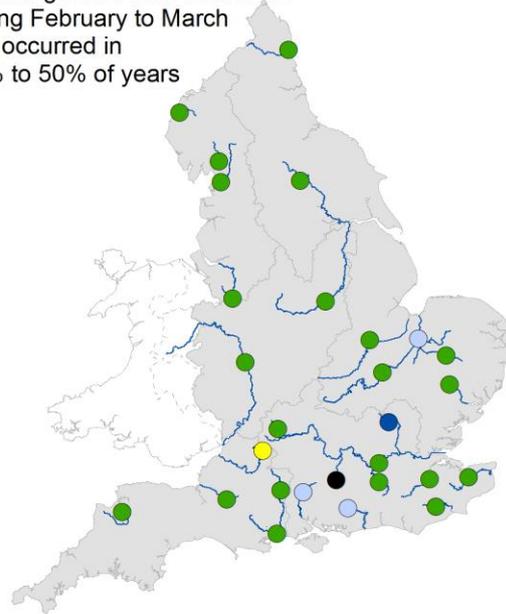
7.1 River flow

Figure 7.1: Projected river flows at key indicator sites up until the end of March 2024. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall between February 2024 and March 2024. Rainfall statistics based on occurrence in the historic record since 1871. Projections for underlined sites produced by CEH.

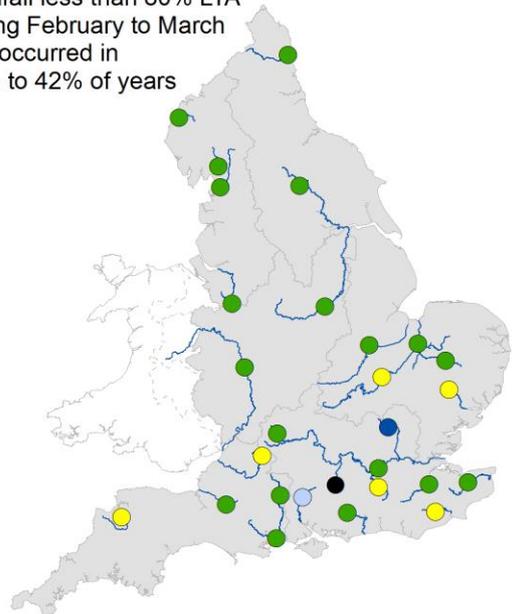
Rainfall greater than 120% LTA during February to March has occurred in 22% to 26% of years



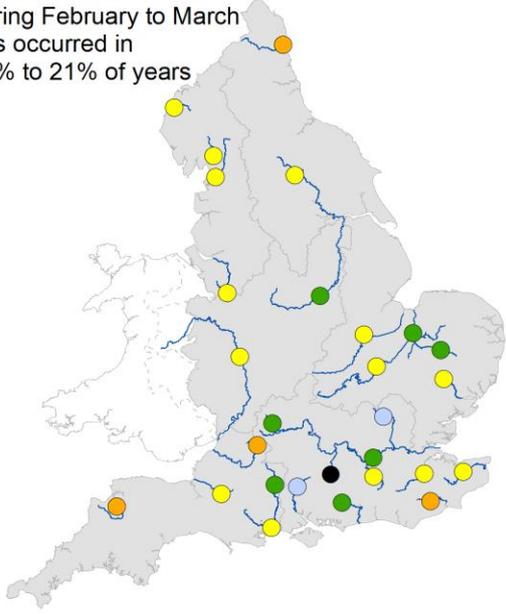
Rainfall greater than 100% LTA during February to March has occurred in 40% to 50% of years



Rainfall less than 80% LTA during February to March has occurred in 31% to 42% of years



Rainfall less than 60% LTA during February to March has occurred in 12% to 21% of years

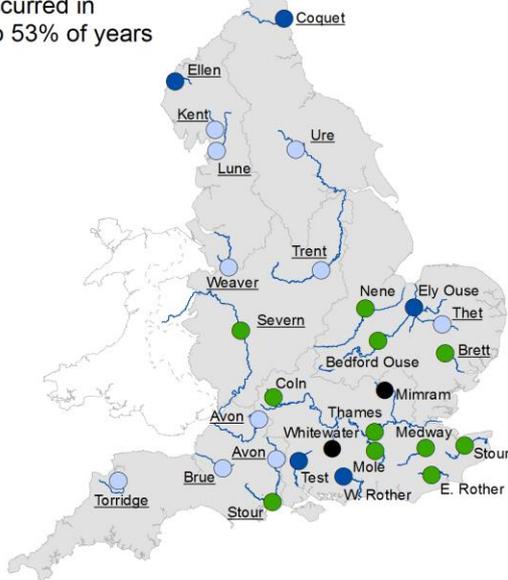


- Exceptionally high
- Above normal
- Below normal
- Exceptionally low
- Notably high
- Normal
- Notably low
- No data

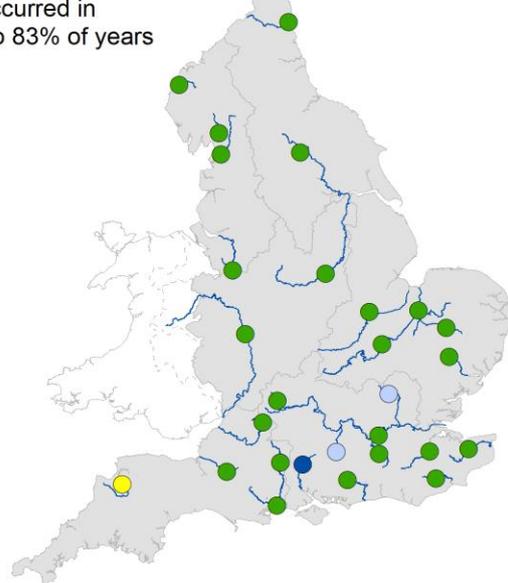
(Source: UK Centre for Ecology and Hydrology, Environment Agency).

Figure 7.2: Projected river flows at key indicator sites up until the end of September 2024. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall between February 2024 and September 2024. Rainfall statistics based on occurrence in the historic record since 1871. Projections for underlined sites produced by CEH

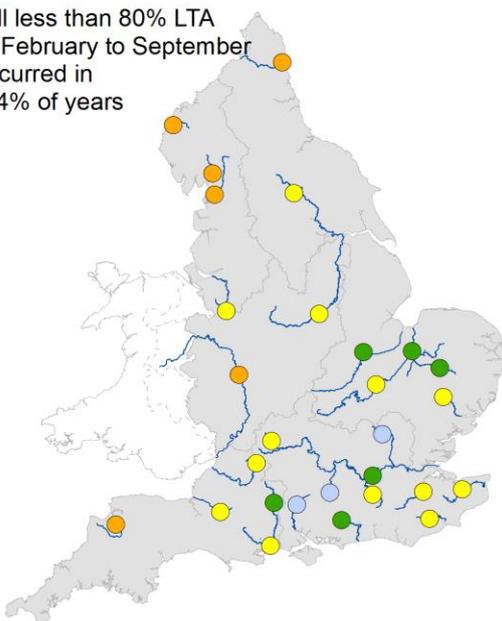
Rainfall greater than 120% LTA during February to September has occurred in 39% to 53% of years



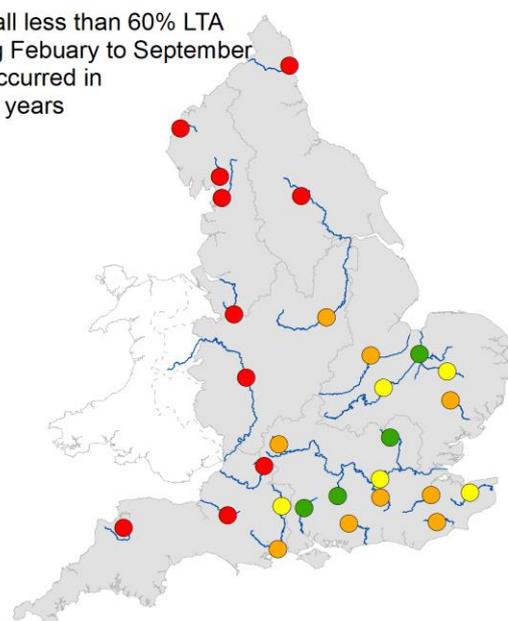
Rainfall greater than 100% LTA during February to September has occurred in 78% to 83% of years



Rainfall less than 80% LTA during February to September has occurred in 1% to 4% of years



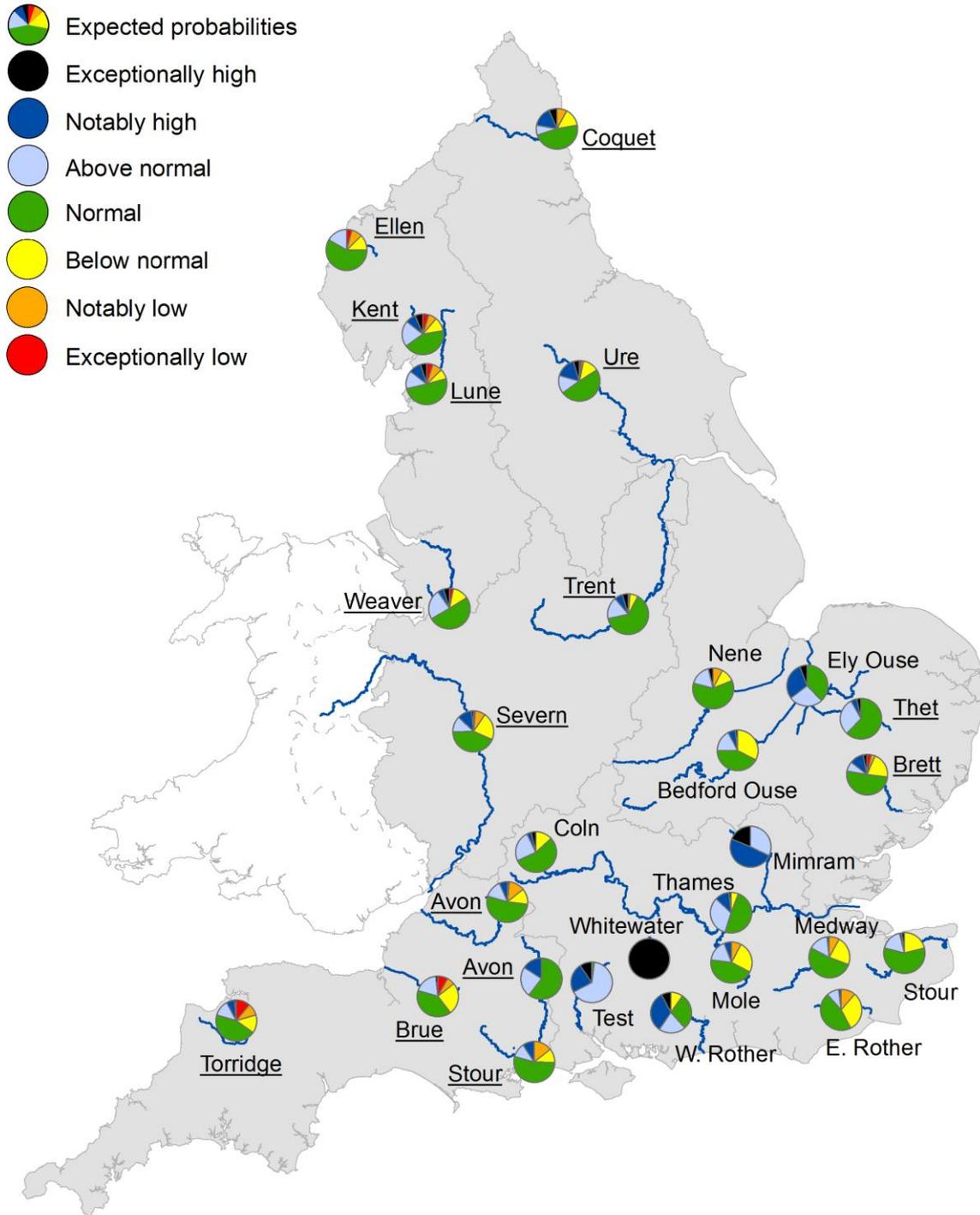
Rainfall less than 60% LTA during February to September has occurred in 0% of years



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

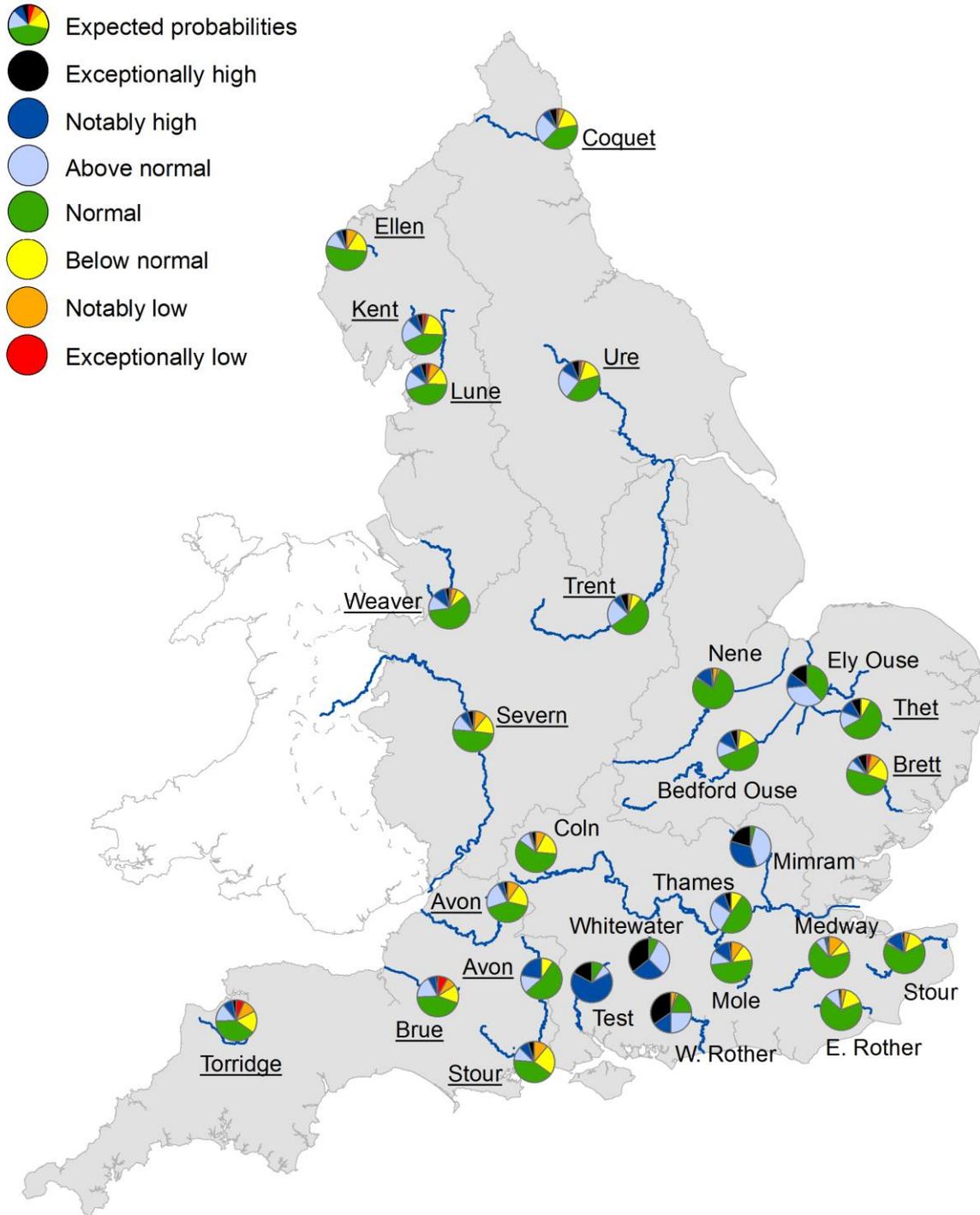
(Source: UK Centre for Ecology and Hydrology, Environment Agency)

Figure 7.3: Probabilistic ensemble projections of river flows at key indicator sites up until the end of March 2024. 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 2024. 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.

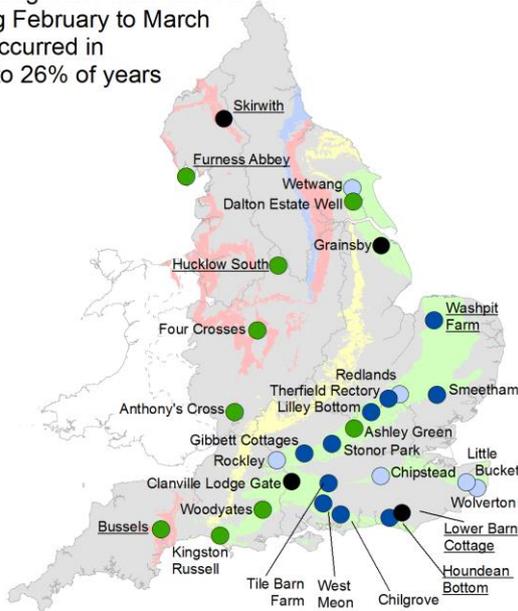


(Source: UK Centre for Ecology and Hydrology, Environment Agency).

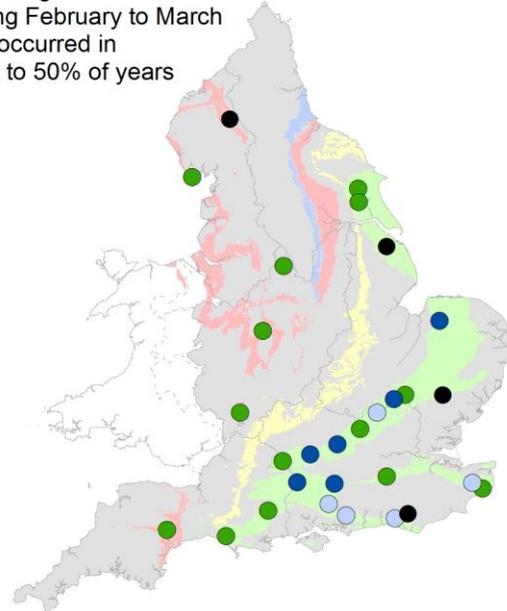
7.2 Groundwater

Figure 7.5: Projected groundwater levels at key indicator sites at the end of March 2024. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average between February 2024 and March 2024. Rainfall statistics based on occurrence in the historic record since 1871. Projections for underlined sites produced by BGS.

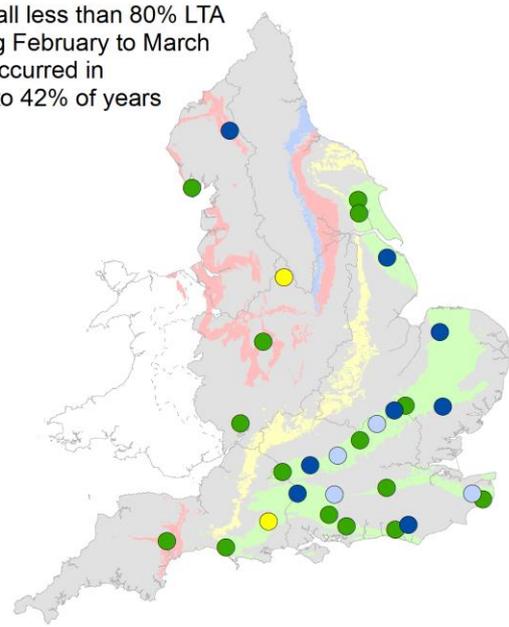
Rainfall greater than 120% LTA during February to March has occurred in 22% to 26% of years



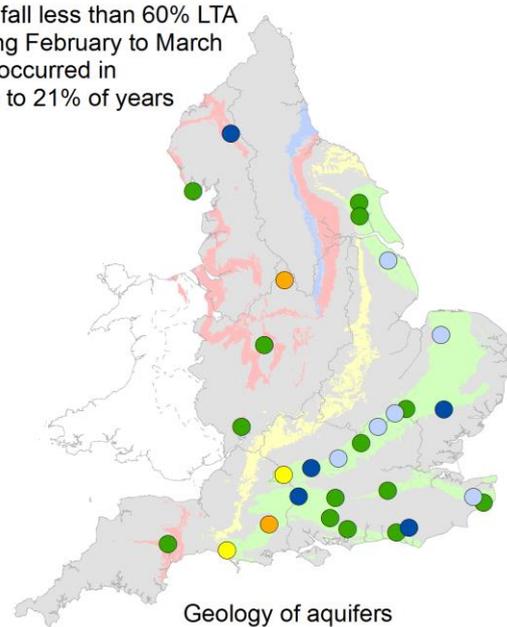
Rainfall greater than 100% LTA during February to March has occurred in 40% to 50% of years



Rainfall less than 80% LTA during February to March has occurred in 31% to 42% of years



Rainfall less than 60% LTA during February to March has occurred in 12% to 21% of years



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

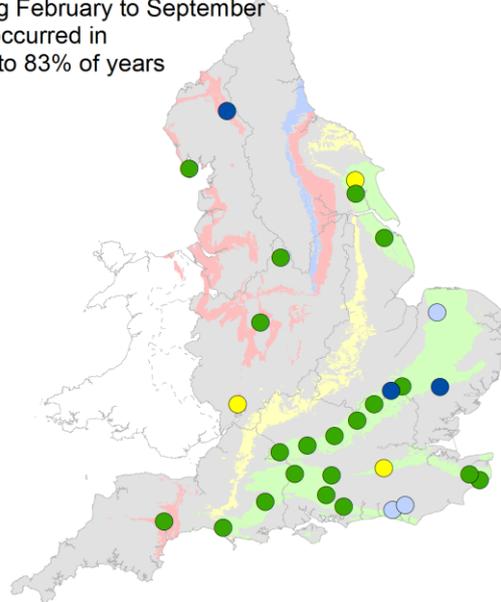
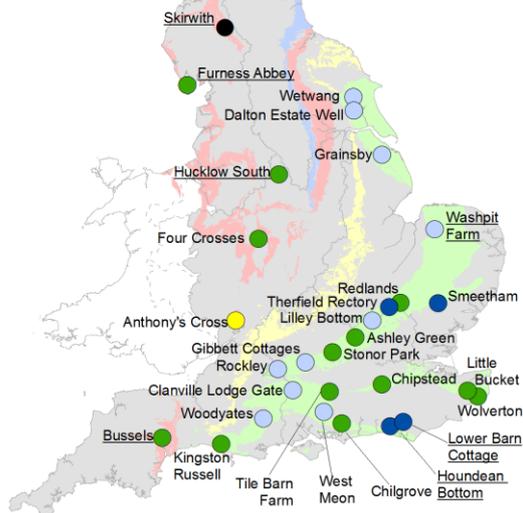
Geology of aquifers
■ Chalk
■ Jurassic limestone
■ Magnesian limestone
■ Permo-Triassic sandstones

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Figure 7.6: Projected groundwater levels at key indicator sites at the end of September 2024. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall between February 2024 and September 2024. Rainfall statistics based on occurrence in the historic record since 1871. Projections for underlined sites produced by BGS.

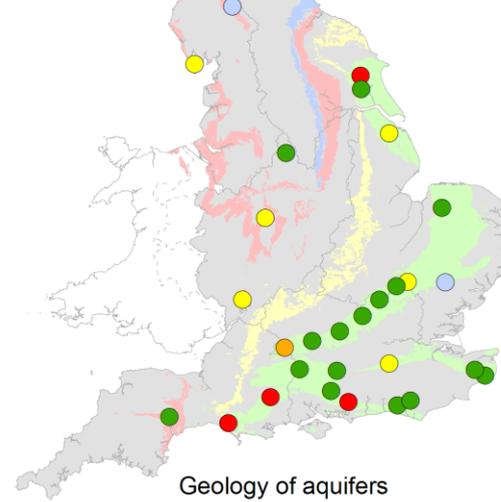
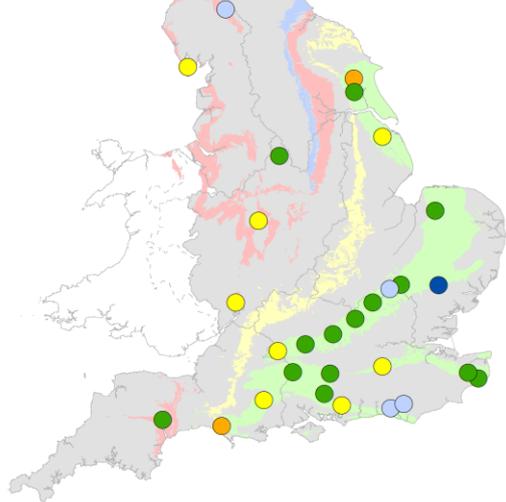
Rainfall greater than 120% LTA during February to September has occurred in 33% to 53% of years

Rainfall greater than 100% LTA during February to September has occurred in 78% to 83% of years



Rainfall less than 80% LTA during February to September has occurred in 1% to 4% of years

Rainfall less than 60% LTA during February to September has occurred in 0% of years

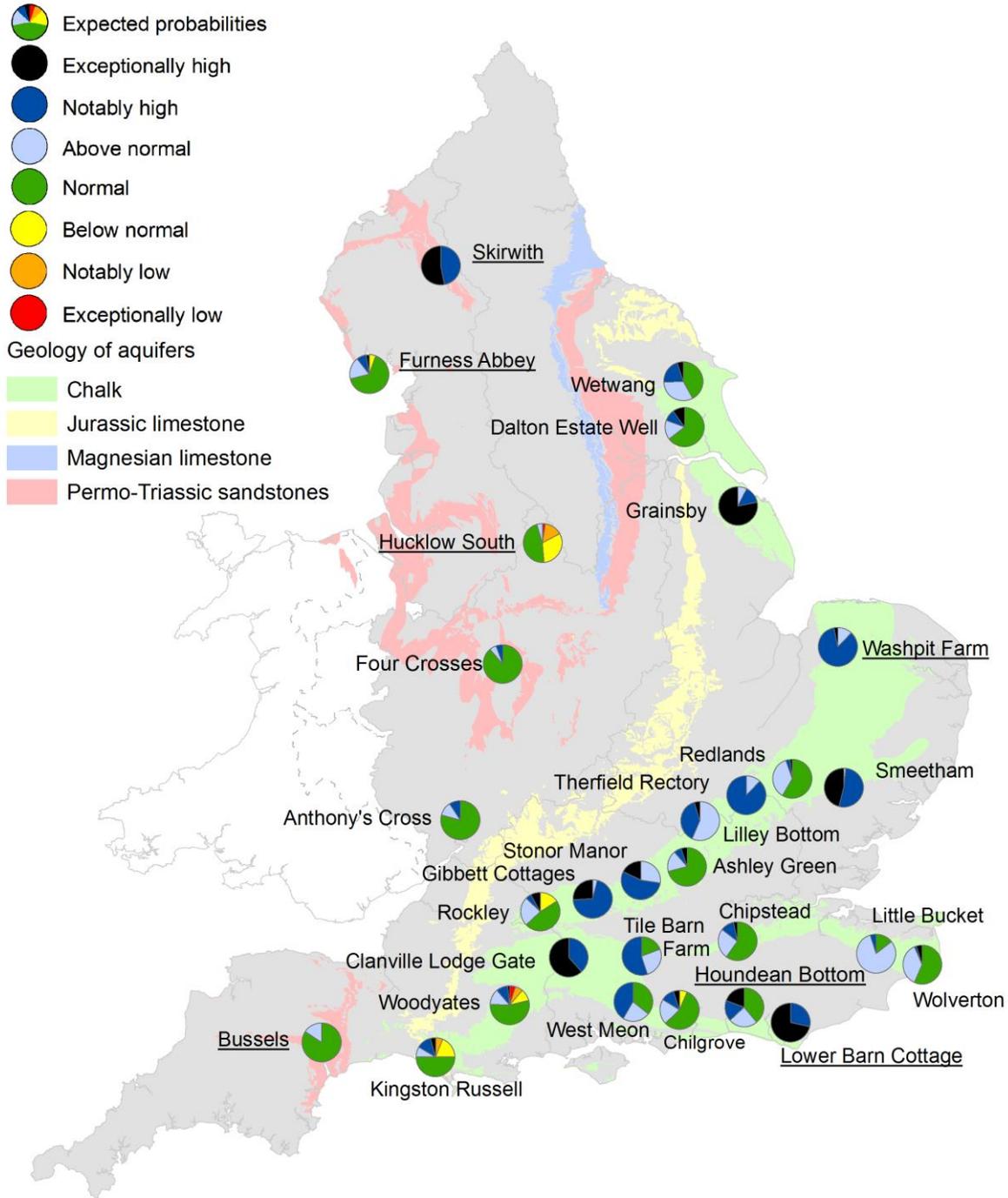


- Exceptionally high
- Notably high
- Above normal
- Normal
- Below normal
- Notably low
- Exceptionally low
- No data

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

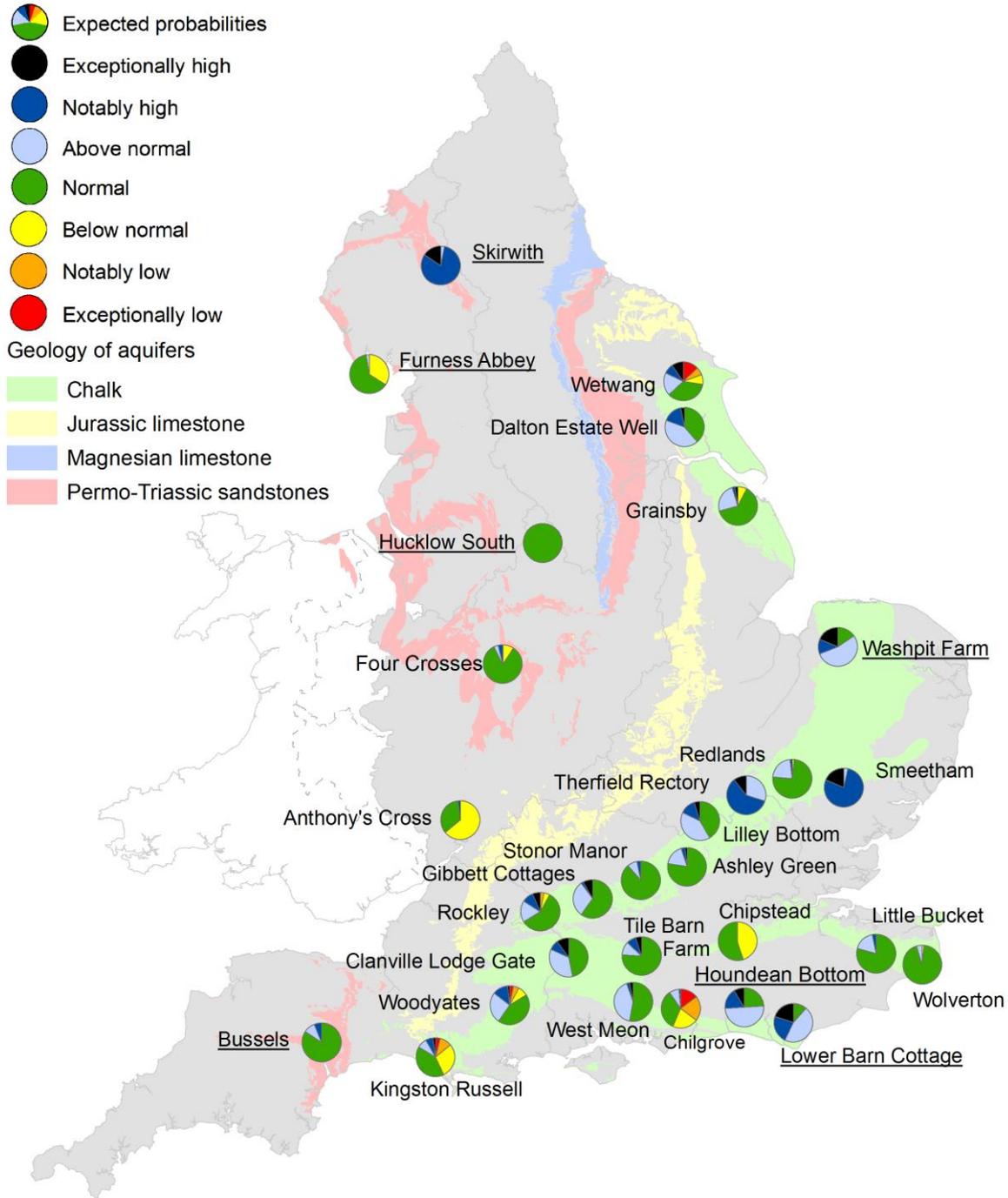
(Source: Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum BGS © NERC Crown copyright. All rights reserved. Environment Agency 100024198 2024.

Figure 7.7: Probabilistic ensemble projections of groundwater levels at key indicator sites at the end of March 2024. 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.



(Source: Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum, BGS © NERC. Crown copyright. All rights reserved. Environment Agency, 100024198, 2024.

Figure 7.8: Probabilistic ensemble projections of groundwater levels at key indicator sites at the end of September 2024. 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 (m^3s^{-1} or m^3/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	Jan 2024 rainfall % of long term average 1961 to 1990	Jan 2024 band	Nov 2023 to January 2024 cumulative band	Aug 2023 to January 2024 cumulative band	Feb 2023 to January 2024 cumulative band
East England	99	Normal	Above normal	Notably high	Notably high
Central England	90	Normal	Notably high	Notably high	Notably high
North East England	124	Above Normal	Exceptionally high	Exceptionally high	Exceptionally high
North West England	137	Above Normal	Exceptionally high	Exceptionally high	Exceptionally high
South East England	102	Normal	Above normal	Notably high	Notably high
South West England	87	Normal	Notably high	Notably high	Notably high
England	106	Normal	Notably high	Exceptionally high	Notably high

9.2 River flows table

Geographic area	Site name	River	Jan 2024 band	Dec 2023 band
East	Burnham	Burn	Exceptionally high	Notably high
East	Claypole	Upper Witham	Notably high	Exceptionally high
East	Colney	Yare	Notably high	Notably high
East	Denver	Ely Ouse	Above normal	Notably high
East	Dernford	Cam	Notably high	Notably high
East	Louth Weir	Lud	Exceptionally high	Exceptionally high
East	Offord	Bedford Ouse	Notably high	Above normal
East	Springfield	Chelmer	Above normal	Notably high
East	Stowmarket	Gipping	Notably high	Notably high
East	Upton Mill	Nene	Notably high	Exceptionally high
Central	Bewdley	Severn	Above normal	Notably high
Central	Derby St. Marys	Derwent	Above normal	Exceptionally high
Central	Evesham	Avon	Notably high	Exceptionally high
Central	Marston-on-dove	Dove	Above normal	Exceptionally high

Central	North Muskham	Trent	Above normal	Exceptionally high
North East	Buttercrambe	Derwent	Notably high	Exceptionally high
North East	Crakehill Topcliffe	Swale	Exceptionally high	Exceptionally high
North East	Heaton Mill	Till	Normal	Exceptionally high
North East	Doncaster	Don	Above normal	Exceptionally high
North East	Haydon Bridge	South Tyne	Above normal	Notably high
North East	Tadcaster	Wharfe	Above normal	Exceptionally high
North East	Witton Park	Wear	Normal	Exceptionally high
North West	Ashton Weir	Mersey	Above normal	Exceptionally high
North West	Caton	Lune	Notably high	Notably high
North West	Ouse Bridge	Derwent	Above normal	Above normal
North West	Pooley Bridge	Eamont	Above normal	Above normal
North West	St Michaels	Wyre	Notably high	Exceptionally high
North West	Ashbrook	Weaver	Above normal	Exceptionally high
South East	Allbrook & Highbridge	Itchen	Exceptionally high	Exceptionally high

South East	Ardingley	Ouse	Above normal	Above normal
South East	Feildes Weir	Lee	Notably high	Above normal
South East	Hansteads	Ver	Notably high	Above normal
South East	Hawley	Darent	Above normal	Above normal
South East	Horton	Great Stour	Normal	Above normal
South East	Kingston (naturalised)	Thames	Exceptionally high	Notably high
South East	Lechlade	Leach	Normal	Above normal
South East	Marlborough	Kennet	Exceptionally high	Notably high
South East	Princes Marsh	Rother	Notably high	Above normal
South East	Teston & Farleigh	Medway	Above normal	Above normal
South East	Udiam	Rother	Above normal	Above normal
South West	Amesbury	Upper Avon	Exceptionally high	Notably high
South West	Austins Bridge	Dart	Normal	Above normal
South West	Bathford	Avon	Notably high	Notably high
South West	Bishops Hull	Tone	Above normal	Notably high
South West	East Stoke	Frome	Exceptionally high	Exceptionally high
South West	Great Somerford	Avon	Notably high	Notably high

South West	Gunnislake	Tamar	Normal	Above normal
South West	Hammoon	Middle Stour	Above normal	Exceptionally high
South West	Knapp Mill	Avon		
South West	Lovington	Upper Brue	Notably high	Exceptionally high
South West	Thorverton	Exe	Normal	Above normal
South West	Torrington	Torrige	Normal	Above normal
South West	Truro	Kenwyn	Normal	Above normal
EA Wales	Manley Hall	Dee	Above normal	Above normal
EA Wales	Redbrook	Wye	Normal	Above normal

9.3 Groundwater table

Geographic area	Site name	Aquifer	End of Jan 2024 band	End of Dec 2023 band
East	Grainsby	Grimsby Ancholme Louth Chalk	Exceptionally high	Exceptionally high
East	Redlands Hall (chalk)	Cam Chalk		
East	Hanthorpe	Cornbrash (South)	Exceptionally high	Exceptionally high
East	Smeetham Hall Cott.	North Essex Chalk	Notably high	Notably high
East	Washpit Farm Rougham	North West Norfolk Chalk	Notably high	Above normal
Central	Four Crosses	Grimsby Ancholme Louth Limestone	Normal	Normal
Central	Weir Farm (sandstone)	Bridgnorth Sandstone Formation		
Central	Coxmoor	Permo Triassic Sandstone	Exceptionally high	Exceptionally high
Central	Crossley Hill	Permo Triassic Sandstone	Normal	Normal
North East	Dalton Estate Well (chalk)	Hull & East Riding Chalk	Exceptionally high	Exceptionally high

North East	Aycliffe Nra2	Skerne Magnesian Limestone	Exceptionally high	Exceptionally high
North East	Wetwang	Hull & East Riding Chalk	Above normal	Exceptionally high
North West	Priors Heyes	West Cheshire Permo-Triassic Sandstone	Notably high	Exceptionally high
North West	Skirwith (sandstone)	Carlisle Basin Permo-Triassic sandstone	Notably high	Exceptionally high
North West	Lea Lane	Fylde Permo- Triassic Sandstone	Below normal	Normal
South East	Chilgrove (chalk)	Chichester- Worthing- Portsdown Chalk	Above normal	Notably high
South East	Clanville Gate Gwl	River Test Chalk	Exceptionally high	Exceptionally high
South East	Houndean Bottom Gwl	Brighton Chalk Block	Normal	Above normal
South East	Little Bucket (chalk)	East Kent Chalk - Stour	Above normal	Exceptionally high
South East	Jackaments Bottom (jurassic Limestone)	Burford Oolitic Limestone (Inferior)	Normal	Normal
South East	Ashley Green Stw Obh	Mid-Chilterns Chalk	Above normal	Above normal

South East	Stonor Park (chalk)	South-West Chilterns Chalk	Notably high	Above normal
South East	Chipstead Gwl	Epsom North Downs Chalk	Above normal	Above normal
South West	Tilshead	Upper Hampshire Avon Chalk	Above normal	Notably high
South West	Woodleys No1	Otterton Sandstone Formation	Above normal	Above normal
South West	Woodyates	Dorset Stour Chalk	Normal	Above normal

9.4 Reservoir table

Geographic region	% Full	Average comparison
East England	86	Above average
Central England	96	Above average
North-east England	98	Above average
North-west England	91	Below average
South-east England	89	Below average
South-west England	92	Above average
England	93	Above average