Monthly water situation report: England

1 Summary - November 2023

November rainfall totals were in the above normal range across most of England, with almost all catchments receiving above average rainfall. Soil moisture deficits (SMD) reduced across England during November as soils became wetter due to the continued rainfall in many areas. River flows increased at almost all of the sites we report on, with the majority of sites reporting above normal monthly mean flows. Groundwater levels increased at all but one of the sites we report on, with levels classed as normal or higher for the time of year. Reservoir stocks increased at three quarters of the reservoirs or reservoir groups we report on, with almost half of all reservoirs classed as above normal or higher for the time of year.

1.1 Rainfall

The November rainfall total for England was 110.8mm which represents 136% of the 1961 to 1990 LTA (Long Term Average) for the time of year (120% of the 1991 to 2020 LTA). Almost all catchments throughout the country received above average rainfall during November, with only two catchments receiving below average. The wettest hydrological area relative to the LTA was the Dover Chalk catchment in south-east England, which received 209% of LTA rainfall. The driest hydrological area was the Esk (Cumbria) in north-west England which received 78% of LTA rainfall in October. (Figure 2.1)

November rainfall totals were classed as above normal or higher for the time of year in most of the catchments across England. The majority of catchments, predominately in the north and south of the country, were classed as receiving above normal rainfall for the time of year. Just under a quarter of catchments, spread across central and north-west England reported normal rainfall during the month. Rainfall at a regional scale was equally split during November, with central, east, and north-east England classed as normal, and the north-west, south-west, and south-east of England as above normal. November's rainfall total for England as whole was also above normal (Figure 2.2).

With the exception of the Esk in Cumbria, 3-month cumulative rainfall totals for catchments throughout the country were classified as above normal or higher. Almost a third of catchments experienced rainfall totals classed as exceptionally high for this period. The 6-month cumulative rainfall totals show a similar picture, with rainfall classed as above normal or higher across the majority of catchments in England. The twelve-month cumulative rainfall totals were notably high in more than half of catchments across England. The remaining catchments were either above normal or notably high with only three catchments classed as normal: the Tweed in north-east England, the Esk (Cumbria) in north-west England, and Lower Wye in Wales. (Figure 2.3)

1.2 Soil moisture deficit

Soil moisture deficits (SMD) continued to reduce throughout England during November, as soils throughout the country continued to respond to the above average rainfall during October and November. Soil moisture deficits across the south-east and east of England experienced the greatest decreases during November. (Figure 3.1)

Across all of England SMDs were below the LTA, leaving soils wetter than expected at the end of November. Soils across much of south-west, central, north-east and north-west England were near or at saturation levels with only minimal soil moisture deficits remaining in parts of south-east and east England. (Figure 3.2)

1.3 River flows

November monthly mean river flows increased at the majority of indicator sites we report on compared to the previous month. Almost all sites were reporting above normal or higher flows for the time of year, with the majority of sites classed as notably high. A third of sites, predominately in south-west England, particularly Wessex, were classed as exceptionally high. Only two sites located in north-west England reported monthly mean river flow classed as normal for November. (Figure 4.1)

Monthly mean river flows increased at all the regional index sites in November compared to October. Flows at three sites were classed as exceptionally high: Marston-on-Dove in central England on the River Dove, Horton on the Great Stour in south-east England, and Thorverton on the Exe in south-west England. Kingston on the River Thames was the only location to report notably high flows during November. Additionally, three sites reported as above normal for the time of year: Offord on the Bedford Ouse, Haydon Bridge on the River South Tyne, and Carlton on the River Lune.

1.4 Groundwater levels

By the end of November, groundwater levels had increased at the majority of indicator sites we report on, with groundwater sites throughout the country classed as normal or higher by the end of November. Two-thirds of indicator sites, concentrated in the south-east, and north-west of England, were classed as either exceptionally high or notably high. Levels at Priors Heyes in north-west England continued to experience the exceptionally high groundwater levels first observed in October, as the West Cheshire Sandstone continues to recover from the effects of historic abstraction. (Figure 5.1)

End of October groundwater levels at all major aquifer index sites increased, with Dalton Estate in the Hull and East Riding Chalk increasing to exceptionally high status. The majority of major aquifer sites reported notably high groundwater levels: Redlands Hall in the Cam and Ely Ouse Chalk, Skirwith in the Carlisle Basin, Chilgrove in the Chichester Chalk, and Little Bucket in the Stour chalk. Two aquifers: Jackaments Bottom in the Burford Jurassic Limestone, and Stonor Park South West Chilterns chalk, reported above normal and normal groundwater levels respectively.

1.5 Reservoir storage

Reservoir storage during the month increased at over three-quarters of the reservoirs or reservoir groups we report on. By the end of November storage at half of the reservoirs or reservoir groups we report on was classed as higher than normal. Five reservoirs recorded storage increases greater than 20%, with Ardingly in south-east England registering the largest increase of 32%. Vyrnwy in north Wales, supplying north-west England, continues to be classed as exceptionally high. In addition, Carsington & Ogston in central England, reported exceptionally high flows for the first time this year. In contrast, a single site; Colliford in south-west England, is classed as below normal. The Dee System in Wales remains notably low due to ongoing reservoir maintenance. (Figure 6.1)

At a regional scale, total reservoir storage increased across almost all of England by the end of November, with only the south-east of England reporting a small decrease. For England as a whole, reservoir storage has increased by 3% to a total of 88%. (Figure 6.2)

1.6 Forward look

December started with wet weather across much of England. Rainfall totals were particularly high in south-west, central and north-east England, although much of the precipitation that fell in the north-east was snow. The rest of the month is likely to remain unsettled for many, with bands of rain moving in from the west, bringing the wettest weather to high ground in the west. A drier spell may develop in the middle of the month, with frost and fog in the south. Temperatures are likely to be mild, with above average temperatures in the south and west.

For the 3 month period for the UK from December to February there is a higher than normal likelihood of mild, wet conditions. Early in the period there is a slightly higher chance of wet weather impacts from heavy rainfall, and stormy conditions including high winds. Later in the period there is the greatest chance of impacts from cold weather.

1.7 Projections for river flows at key sites

By the end of March 2024, river flows in east and south-east England have a higher than expected chance of being above normal or higher. Across the rest of England, river flows are projected to be normal for the time of year. By the end of September 2024, river flows across England are projected to be normal or higher for the time of year.

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 across most of England have a higher than expected chance of being above normal or higher. In south-west and Central England groundwater levels are projected to be normal for the time of year. By the end of September 2024, groundwater levels have a higher likelihood of being normal or higher in north-west, north-east, central and east England. In south-west and south-east England groundwater levels are projected to be 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.

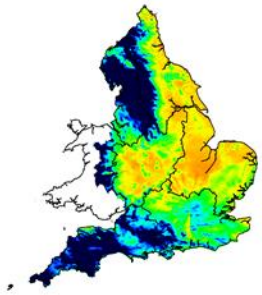
Author: National Water Resources Hydrology Team, Nationalhydrology@environment-agency.gov.uk

2 Rainfall

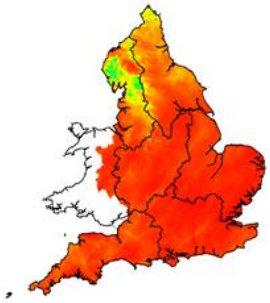
2.1 Rainfall map

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.

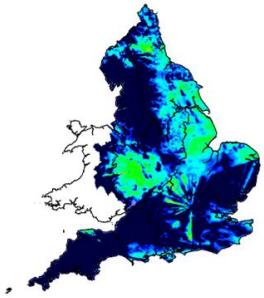
January 2023



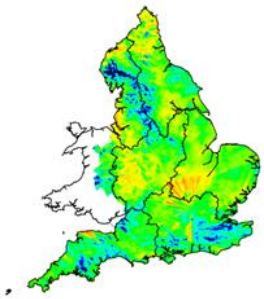
February 2023



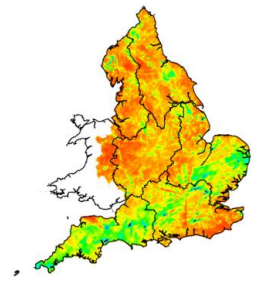
March 2023



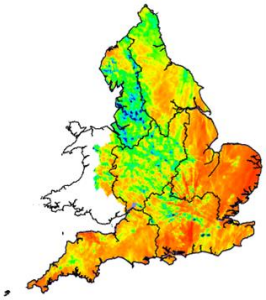
April 2023



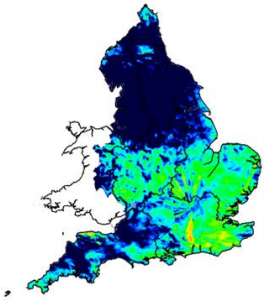
May 2023



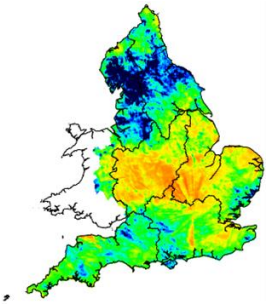
June 2023



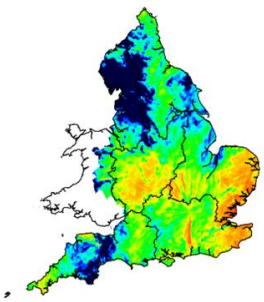
July 2023



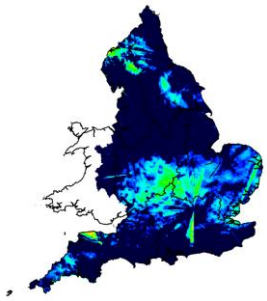
August 2023



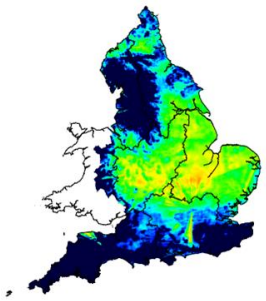
September 2023



October 2023



November 2023



Map Legend

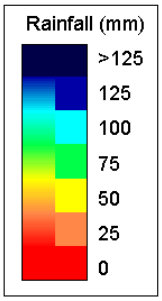
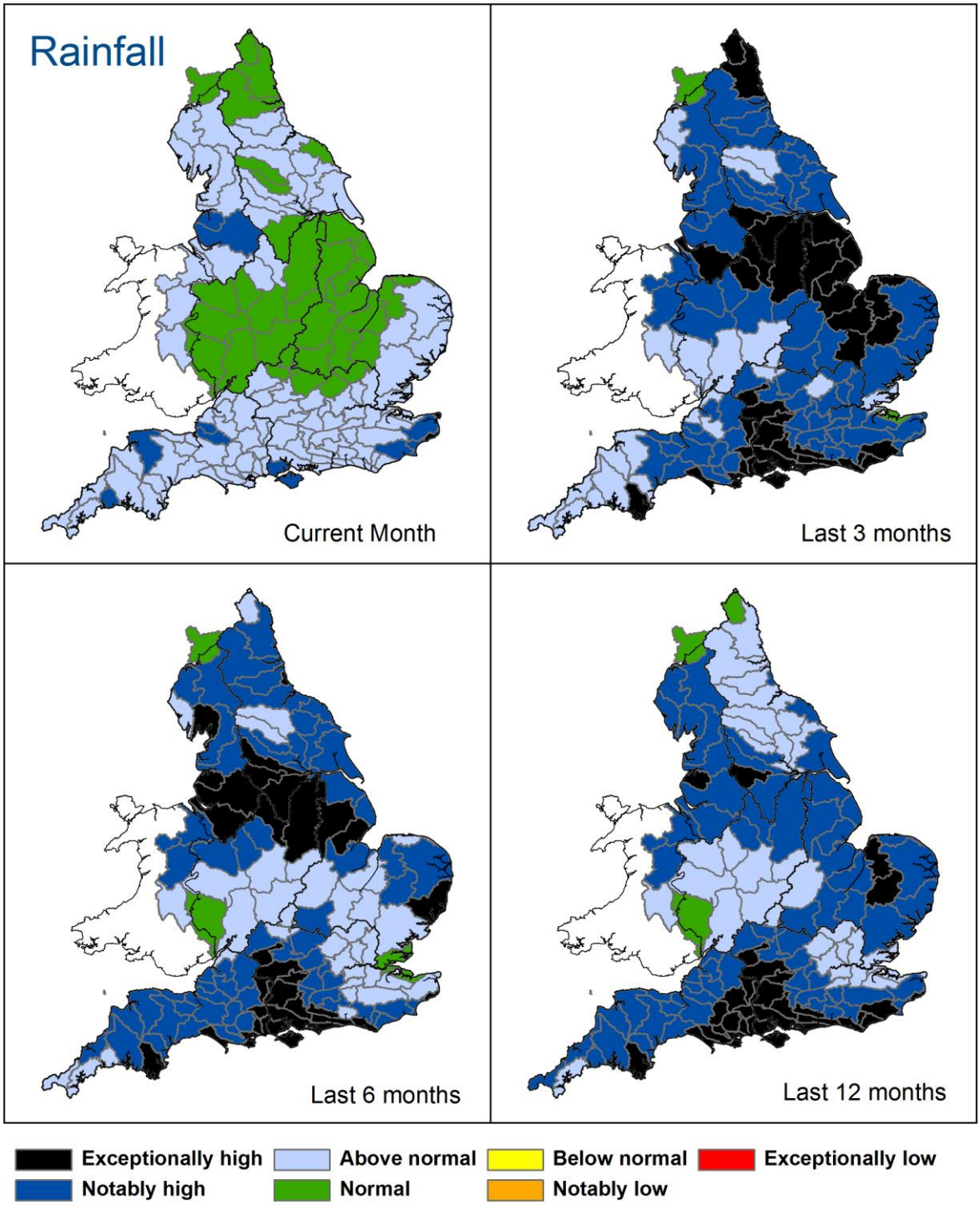


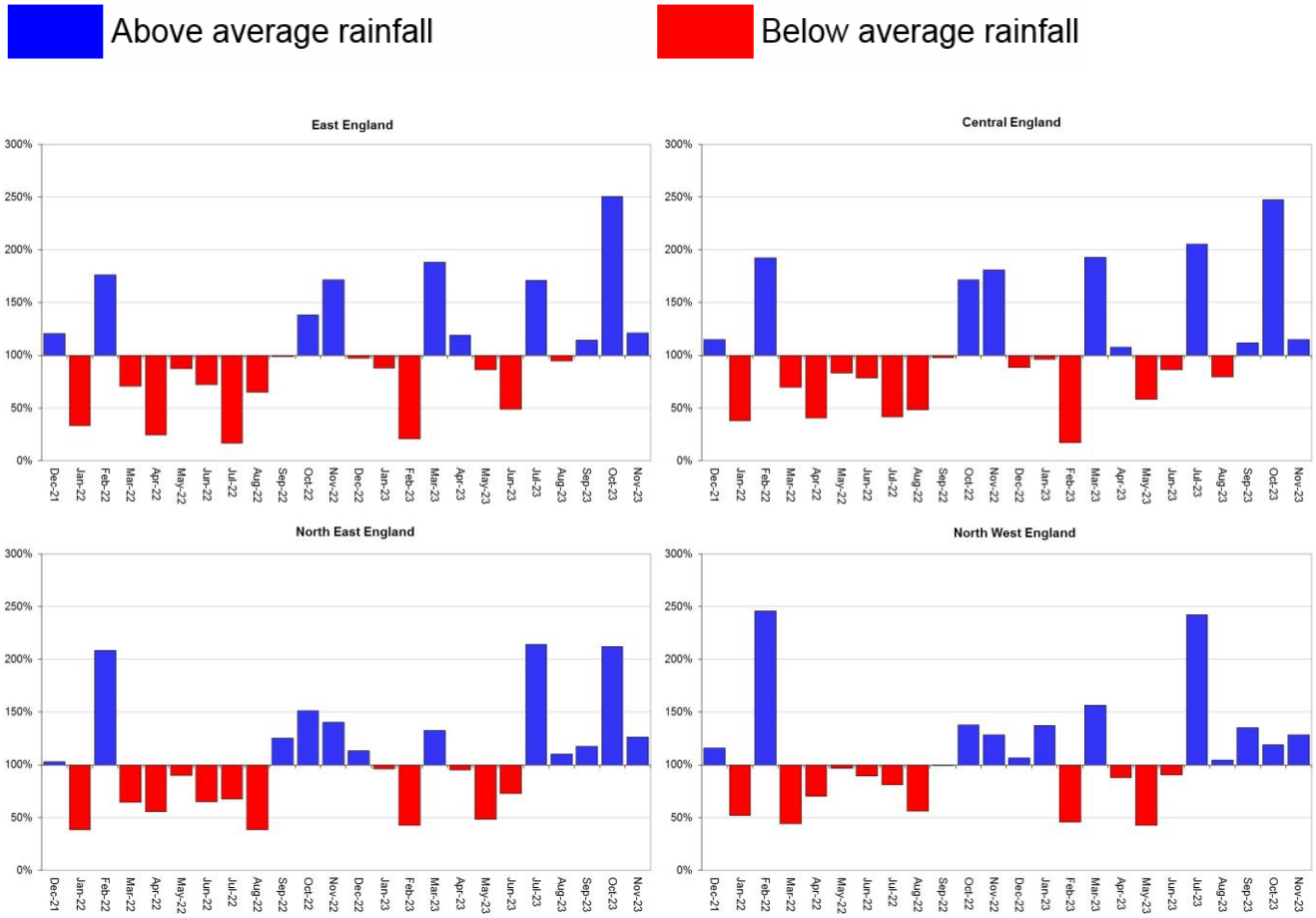
Figure 2.2: Total rainfall for hydrological areas across England for the current month (up to 30 November 2023), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals.

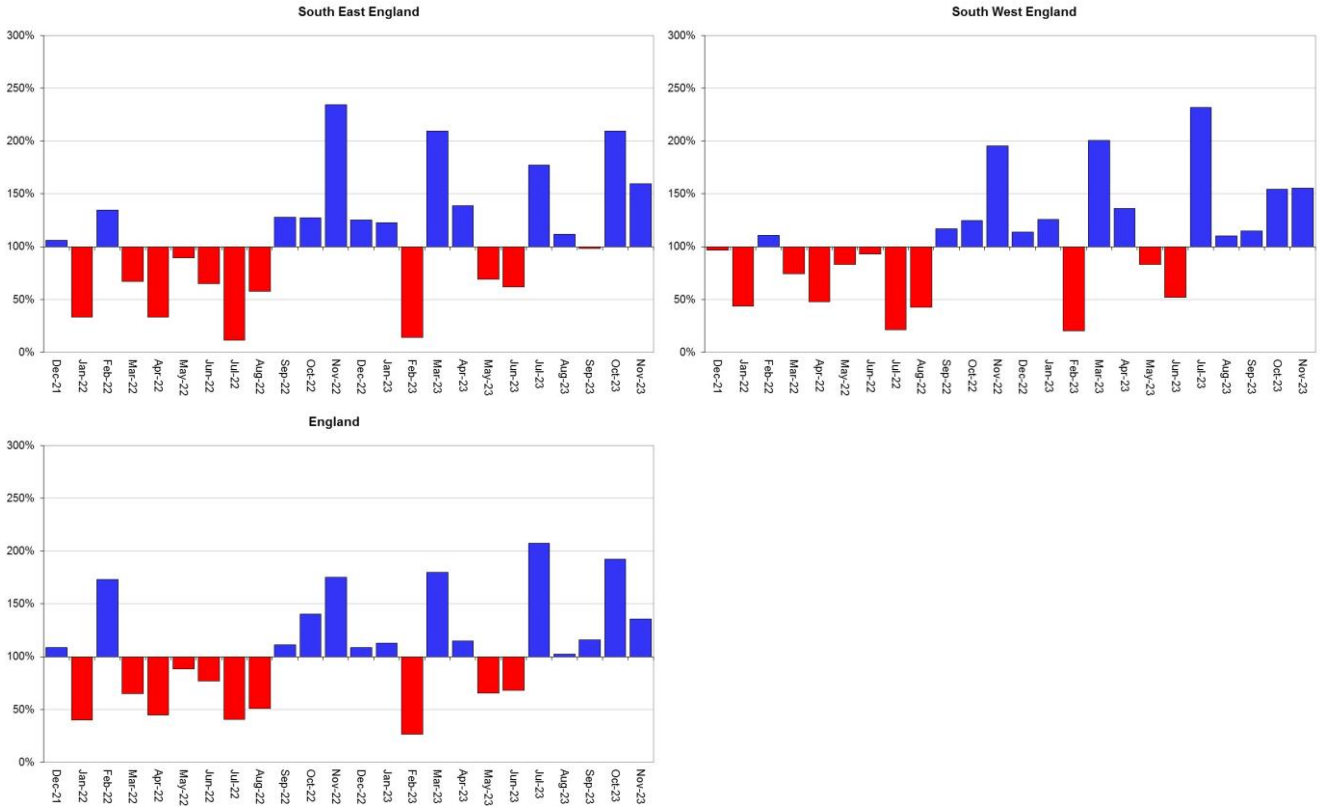


Rainfall data for 2023, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2023). Rainfall data prior to 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived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





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, 2023). Rainfall data prior to 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2023).

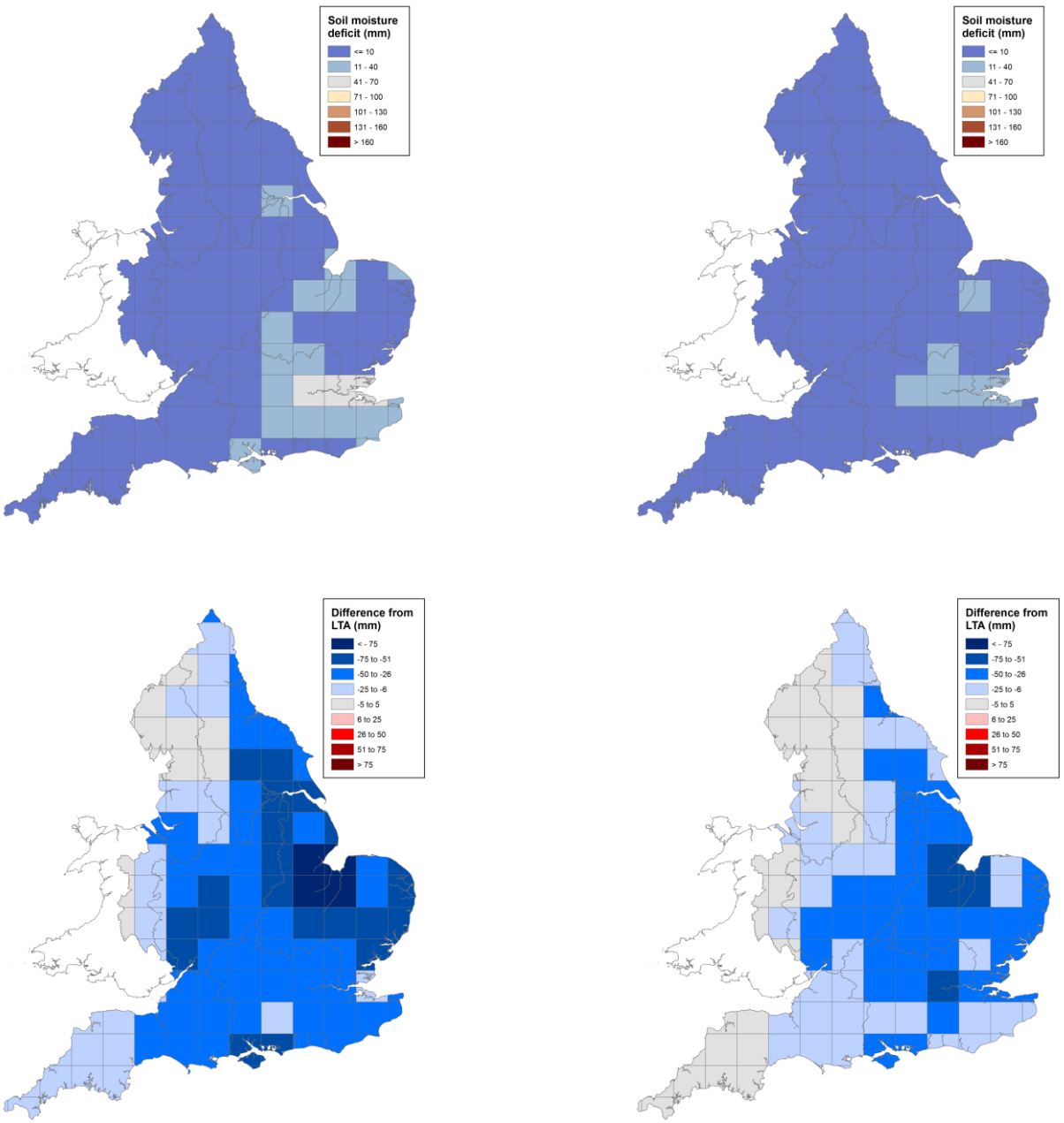
3 Soil moisture deficit

3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for weeks ending, 01 November 2023 (left panel) and 29 November 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.

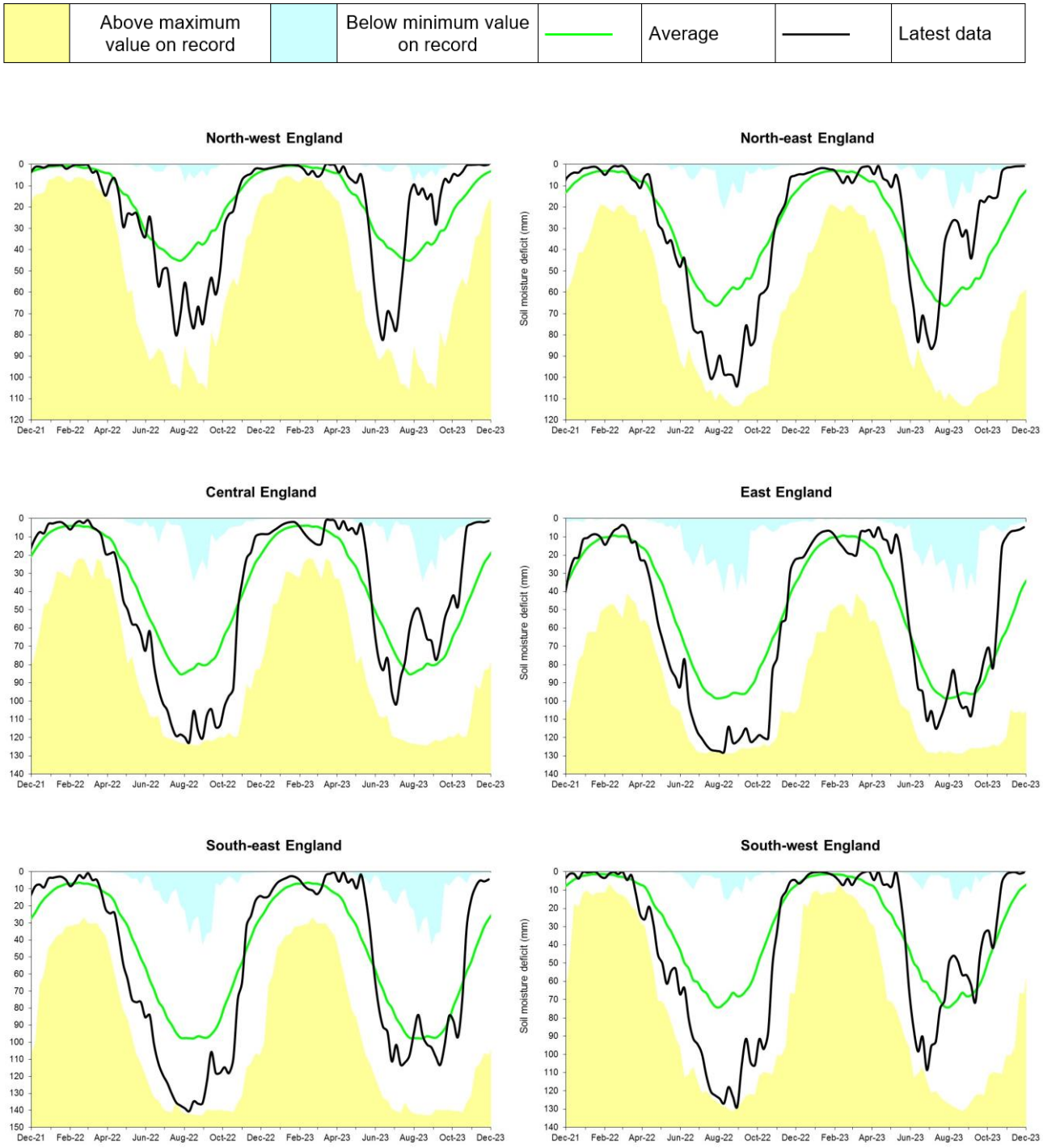
End of October 2023

End of November 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.



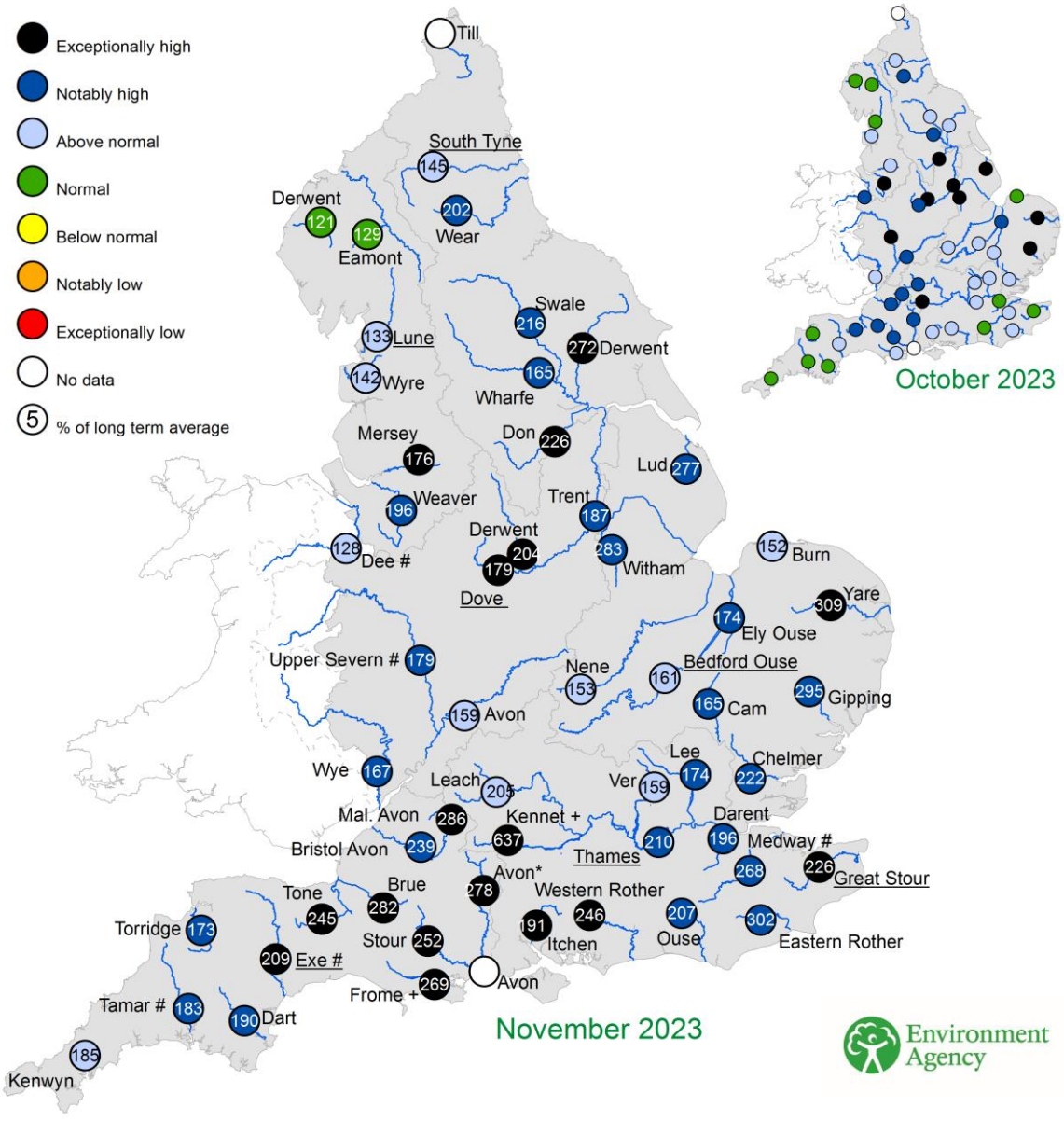
(Source: Met Office. Crown copyright, 2023).

4 River flows

4.1 River flow map

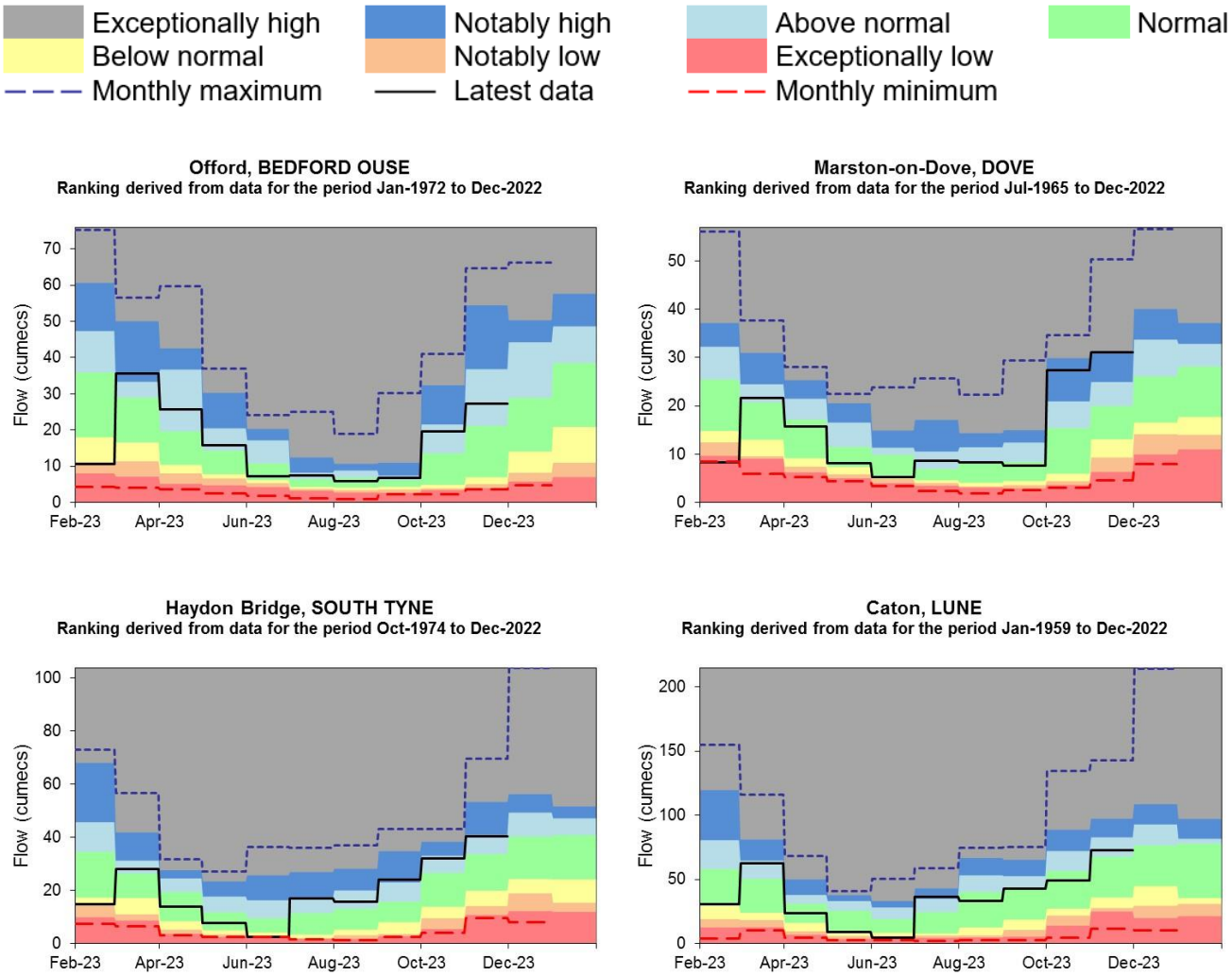
Figure 4.1: Monthly mean river flow for indicator sites for October 2023 and November 2023, expressed as a percentage of the respective long term average and classed relative to an analysis of historic October and November monthly means. Table available in the appendices with detailed information. Regional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

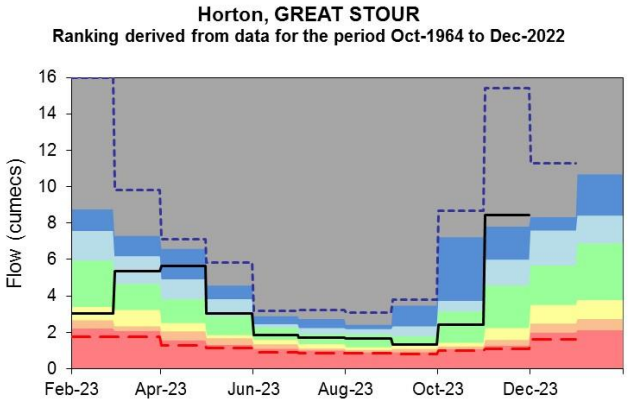
Naturalised flows are provided for the River Thames and the River Lee. +/- Monthly mean flow is the highest/lowest on record for the current month (note that record length varies between sites). * Flows may be overestimated at these sites – data should be treated with caution.
Flows may be impacted at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

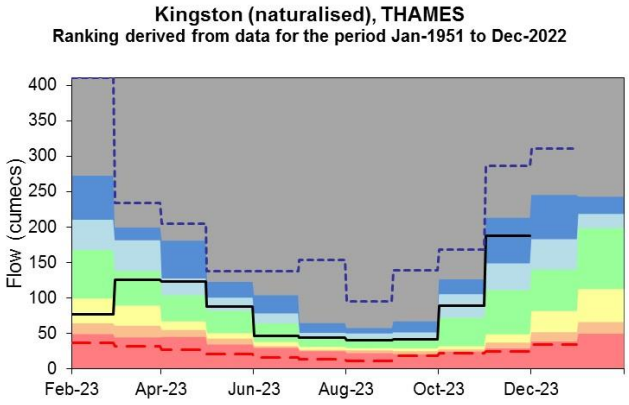


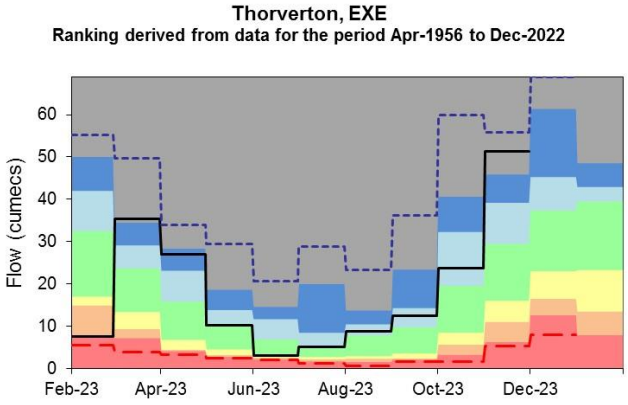
4.2 River flow charts

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.









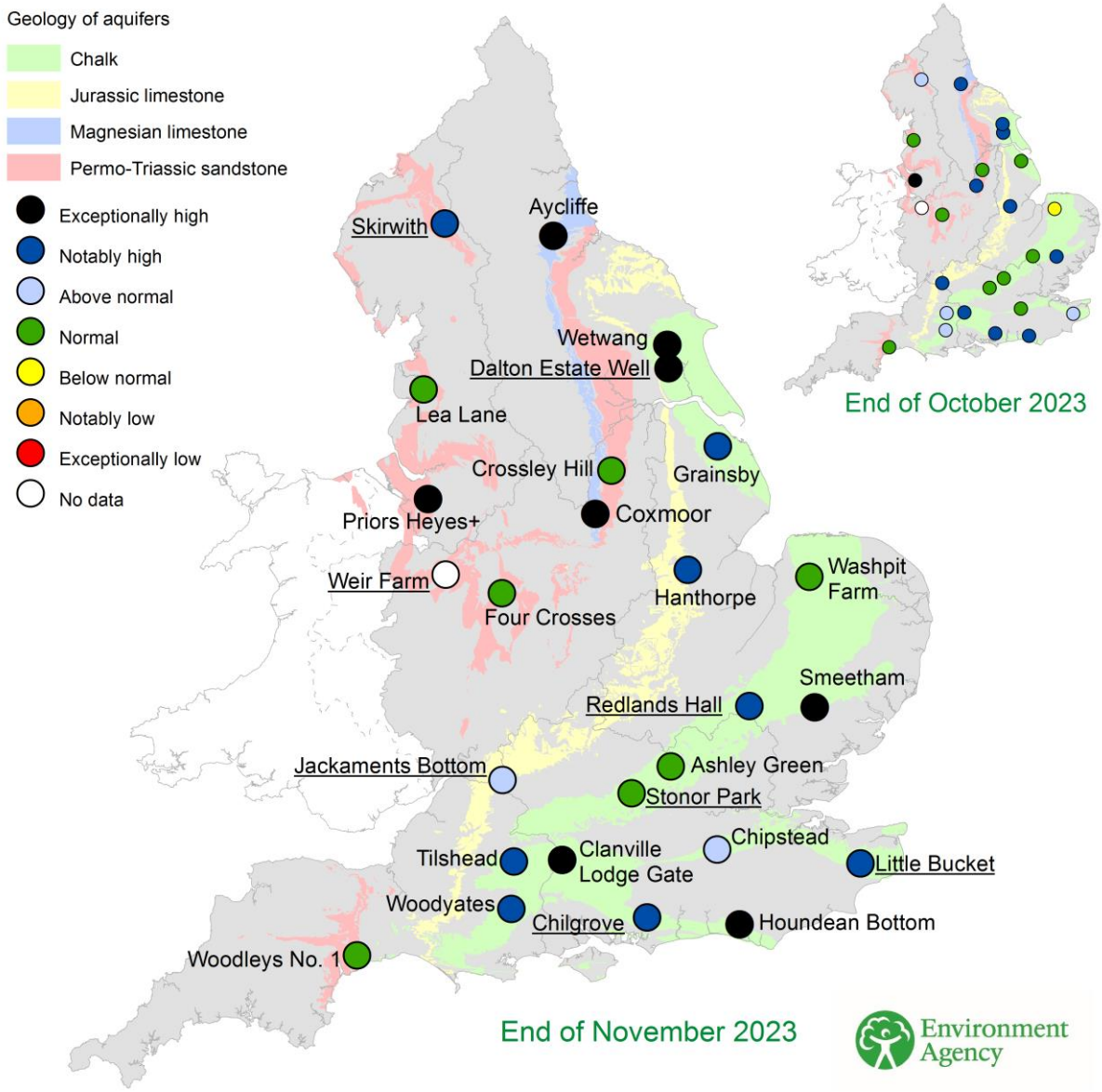
(Source: Environment Agency).

5 Groundwater levels

5.1 Groundwater levels map

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

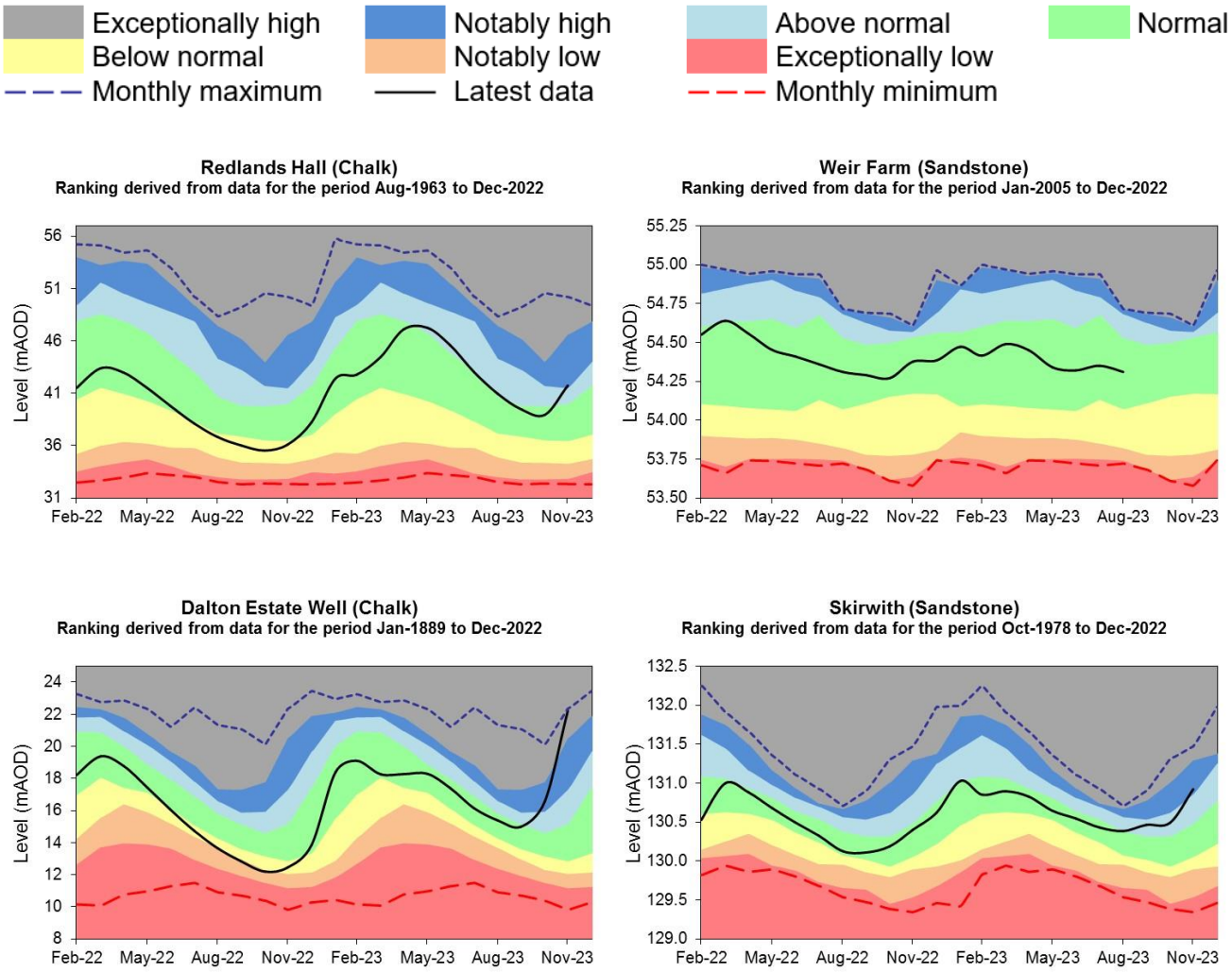
Redlands Hall and Aycliffe are manually dipped at different times during the month and so may not be fully representative of month end levels. Levels at Priors Heyes remain high compared to historic levels because the aquifer is recovering from the effects of historic abstraction. +/- End of month groundwater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

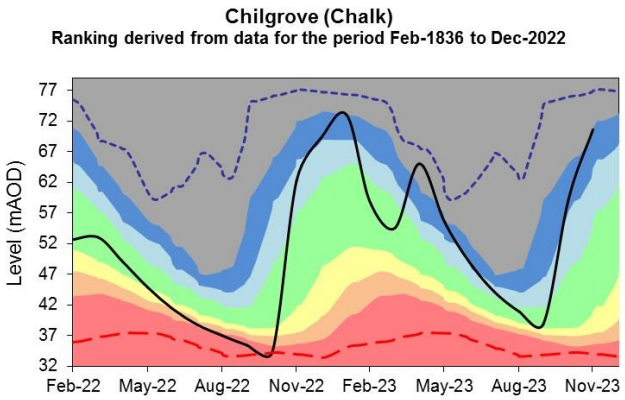


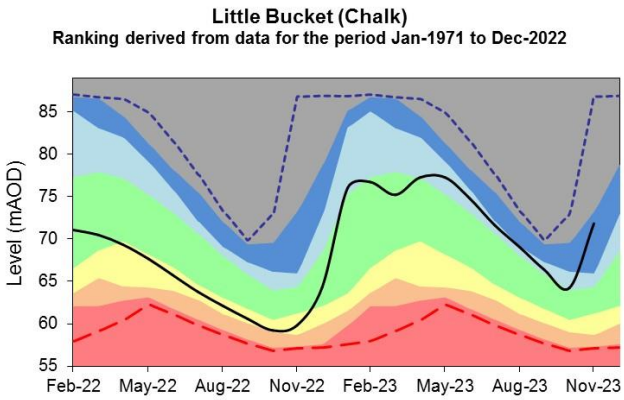
(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

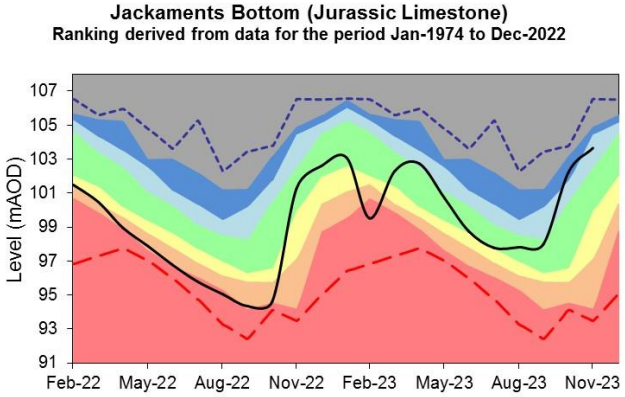
5.2 Groundwater level charts

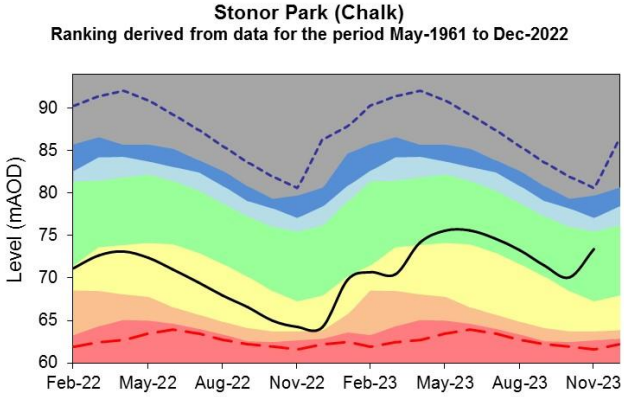
Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. Past 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.









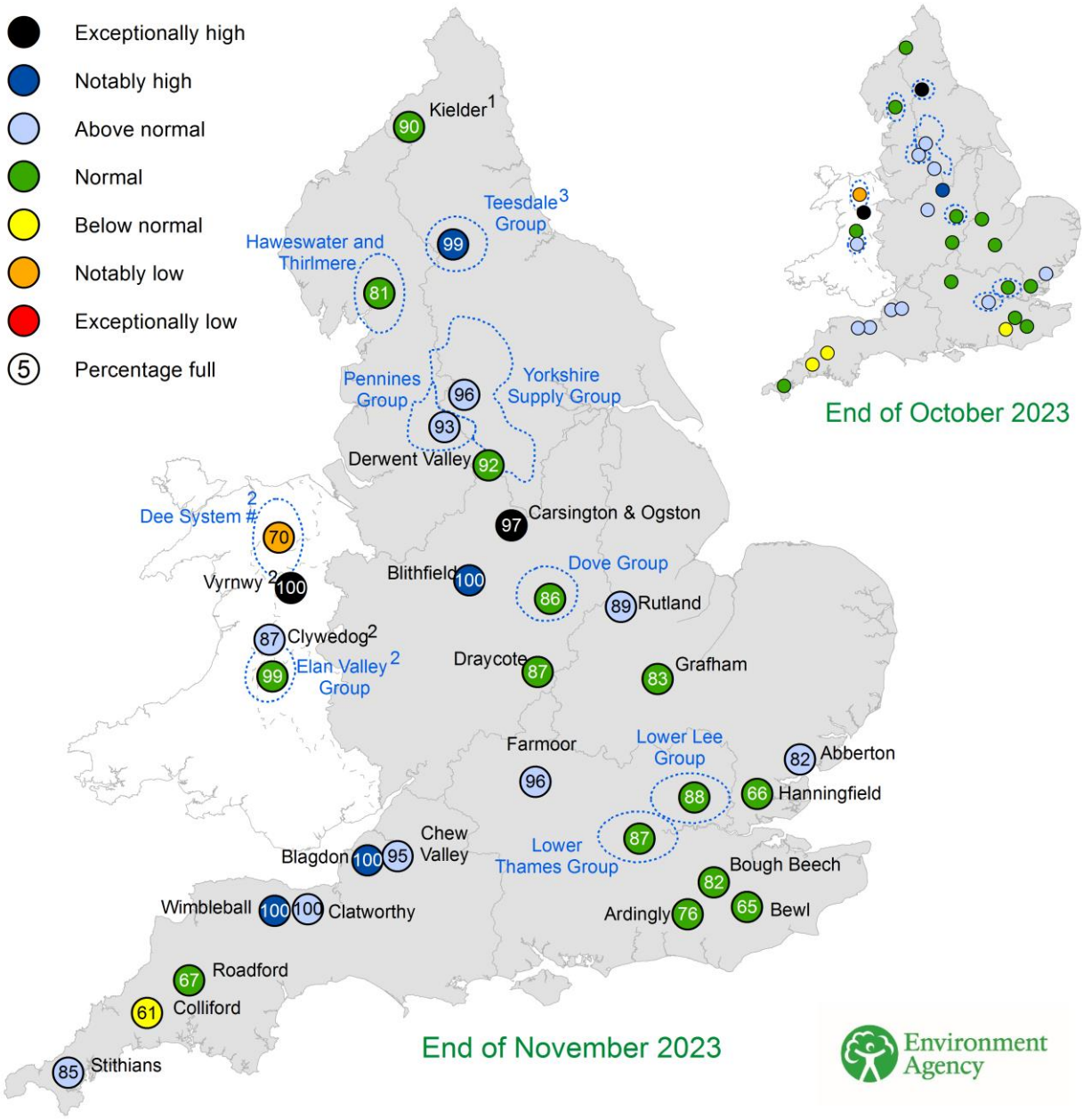


(Source: Environment Agency, 2023)

6 Reservoir storage

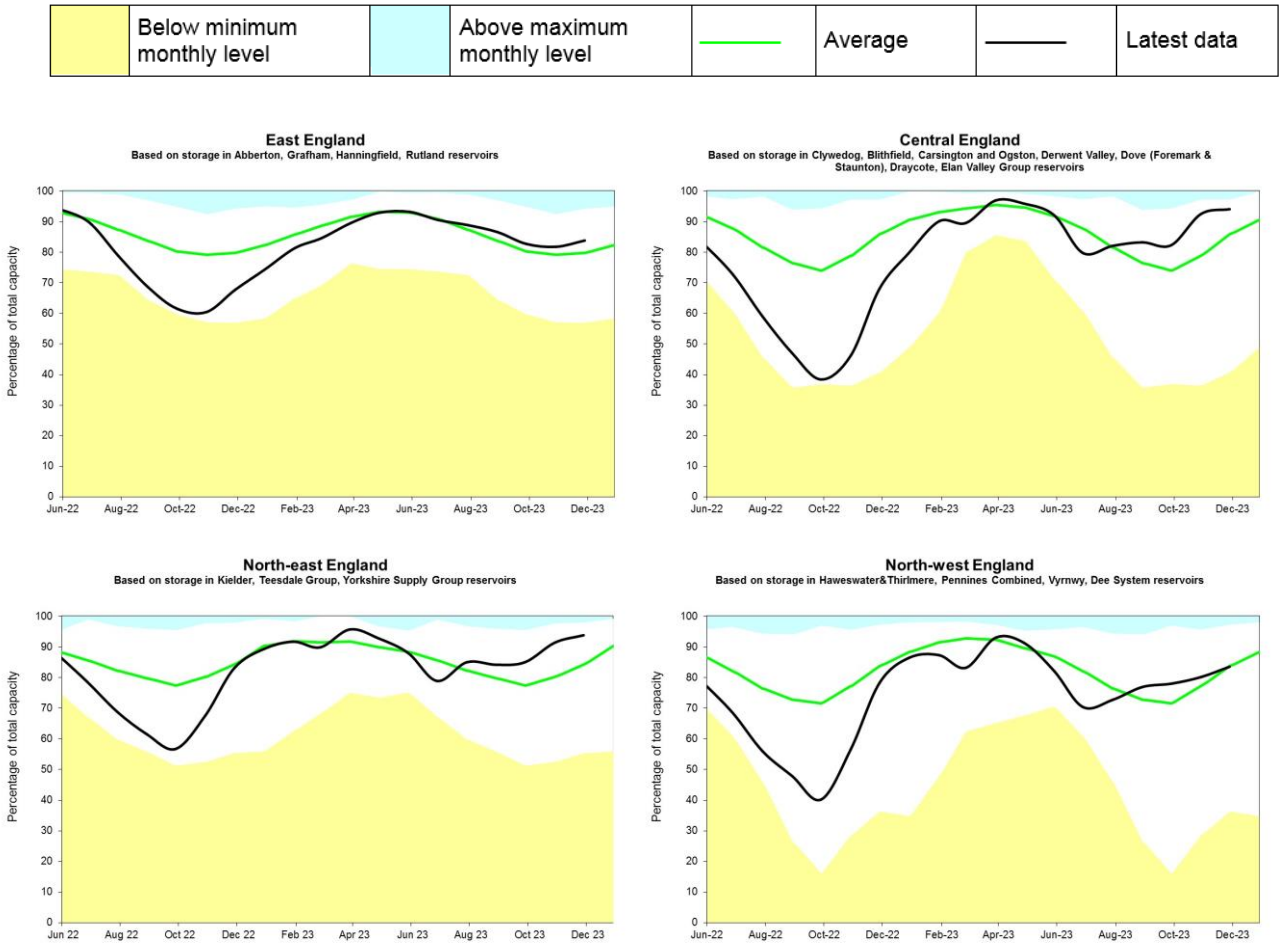
6.1 Reservoir storage map

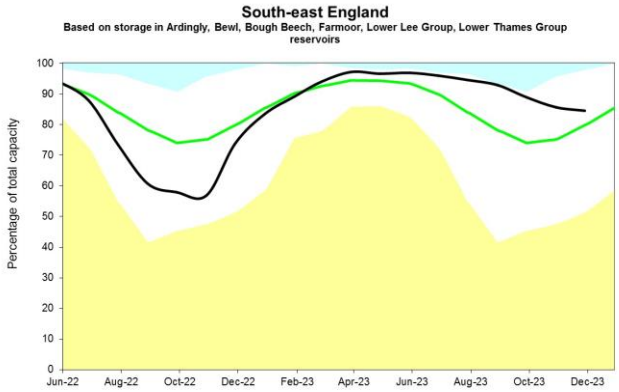
Figure 6.1: Reservoir stocks at key individual and groups of reservoirs at the end of October 2023 and November 2023 as a percentage of total capacity and classed relative to an analysis of historic October and November values respectively. Note: Classes shown may not necessarily relate to control curves 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.

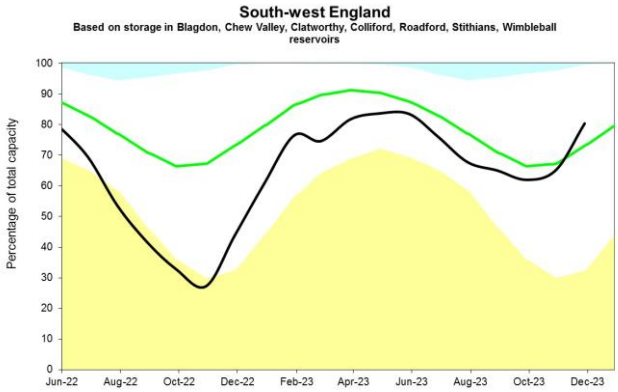


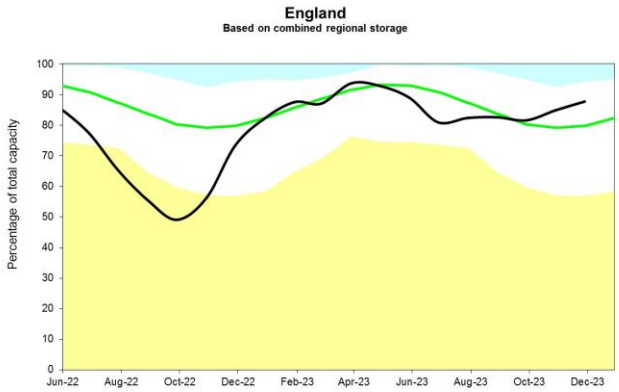
6.2 Reservoir storage charts

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.







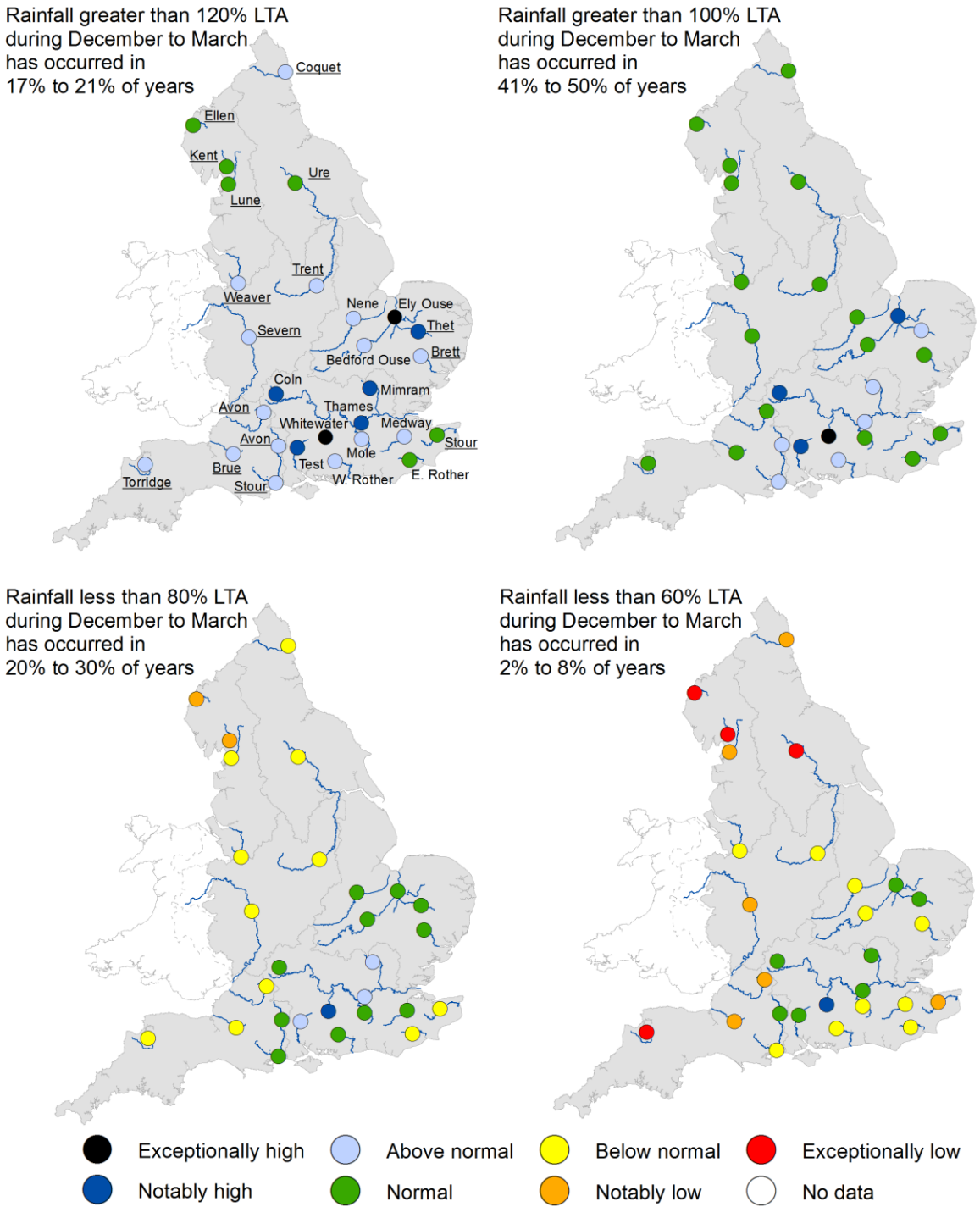


(Source: Water Companies).

7 Forward look

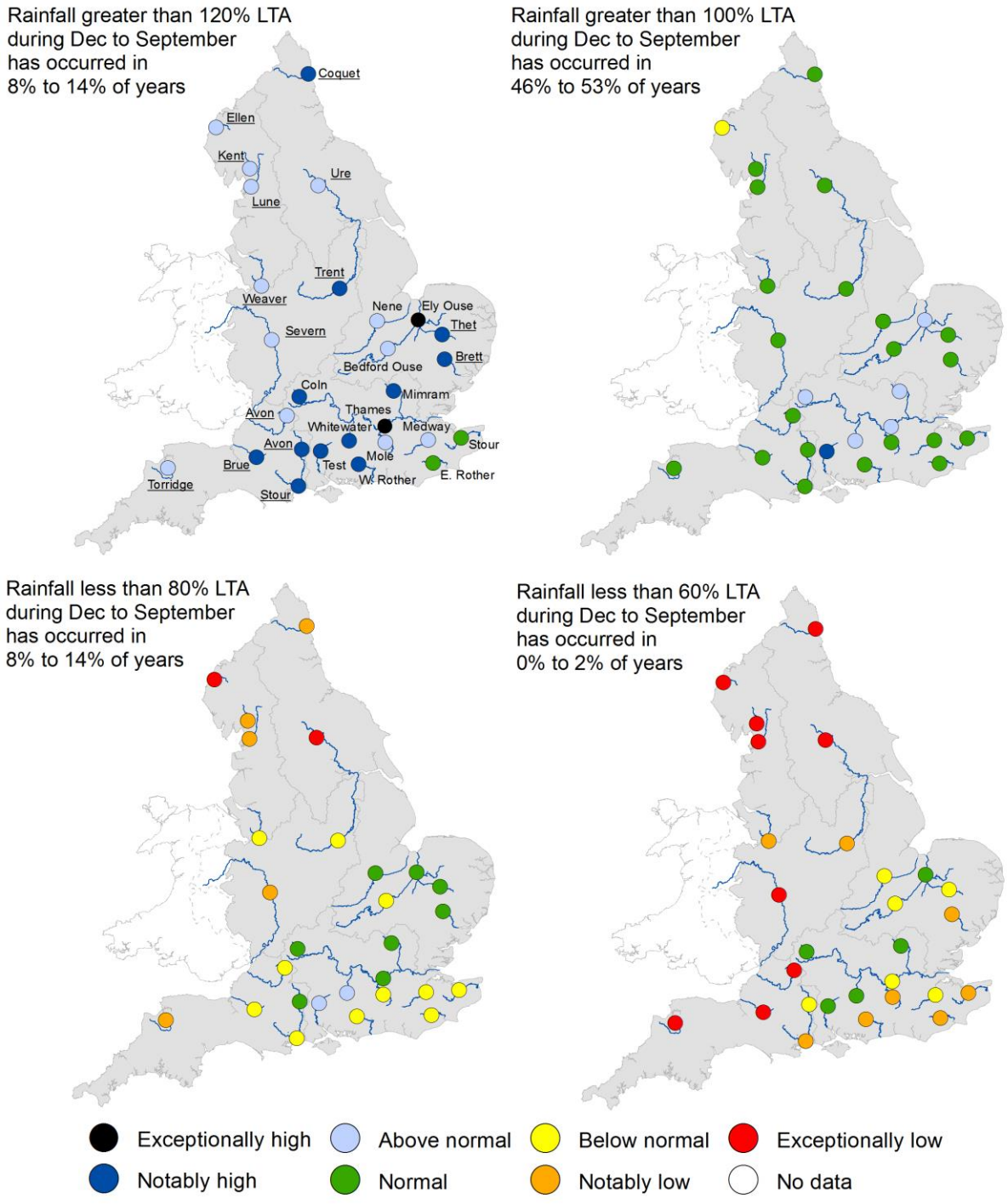
7.1 River flow

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 December 2023 and March 2024. Rainfall statistics based on occurrence in the historic record since 1871. Projections for underlined sites produced by CEH.



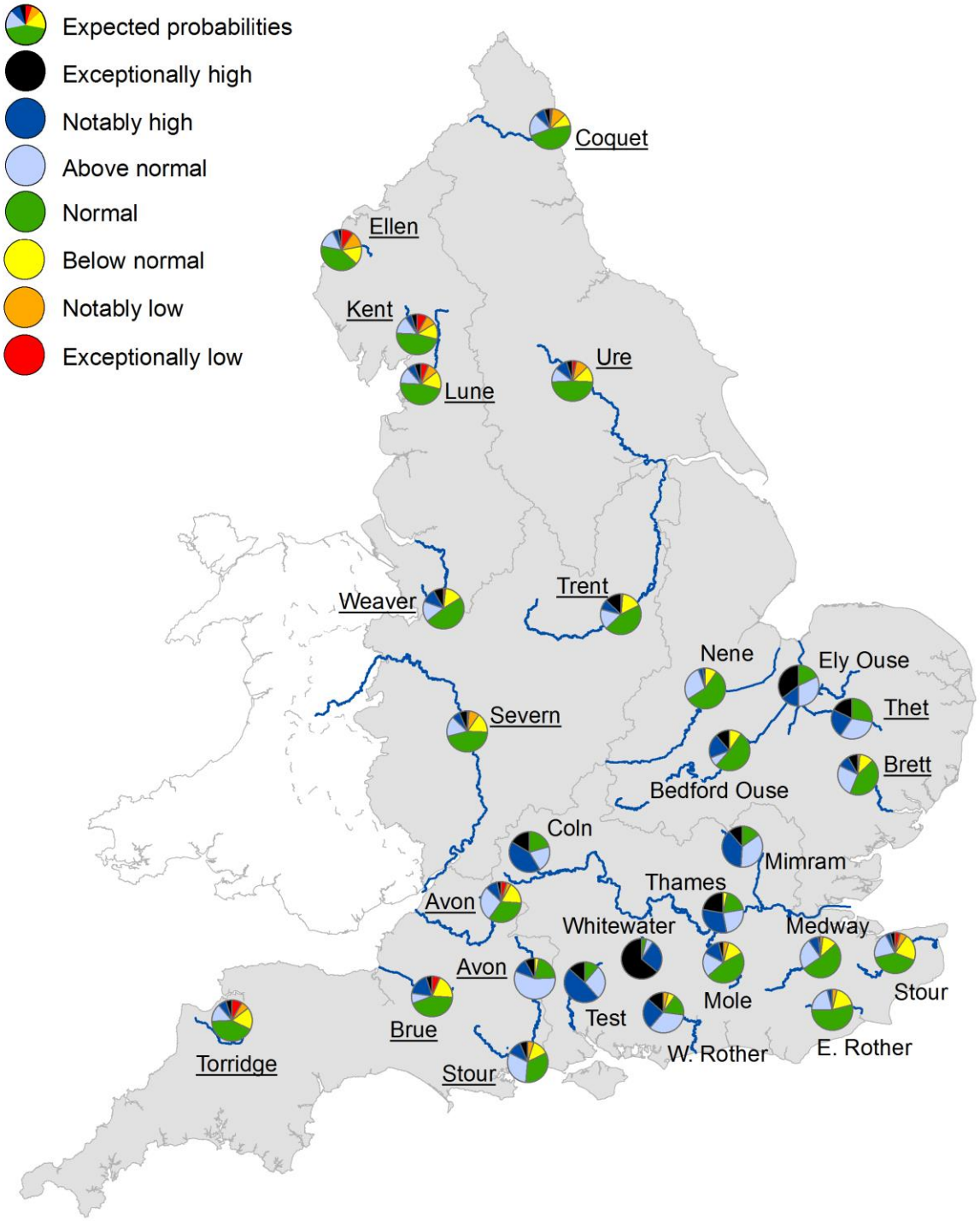
(Source: UK Centre for Ecology and Hydrology, Environment Agency).

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 December 2023 and September 2024. Rainfall statistics based on occurrence in the historic record since 1871. Projections for underlined sites produced by CEH.



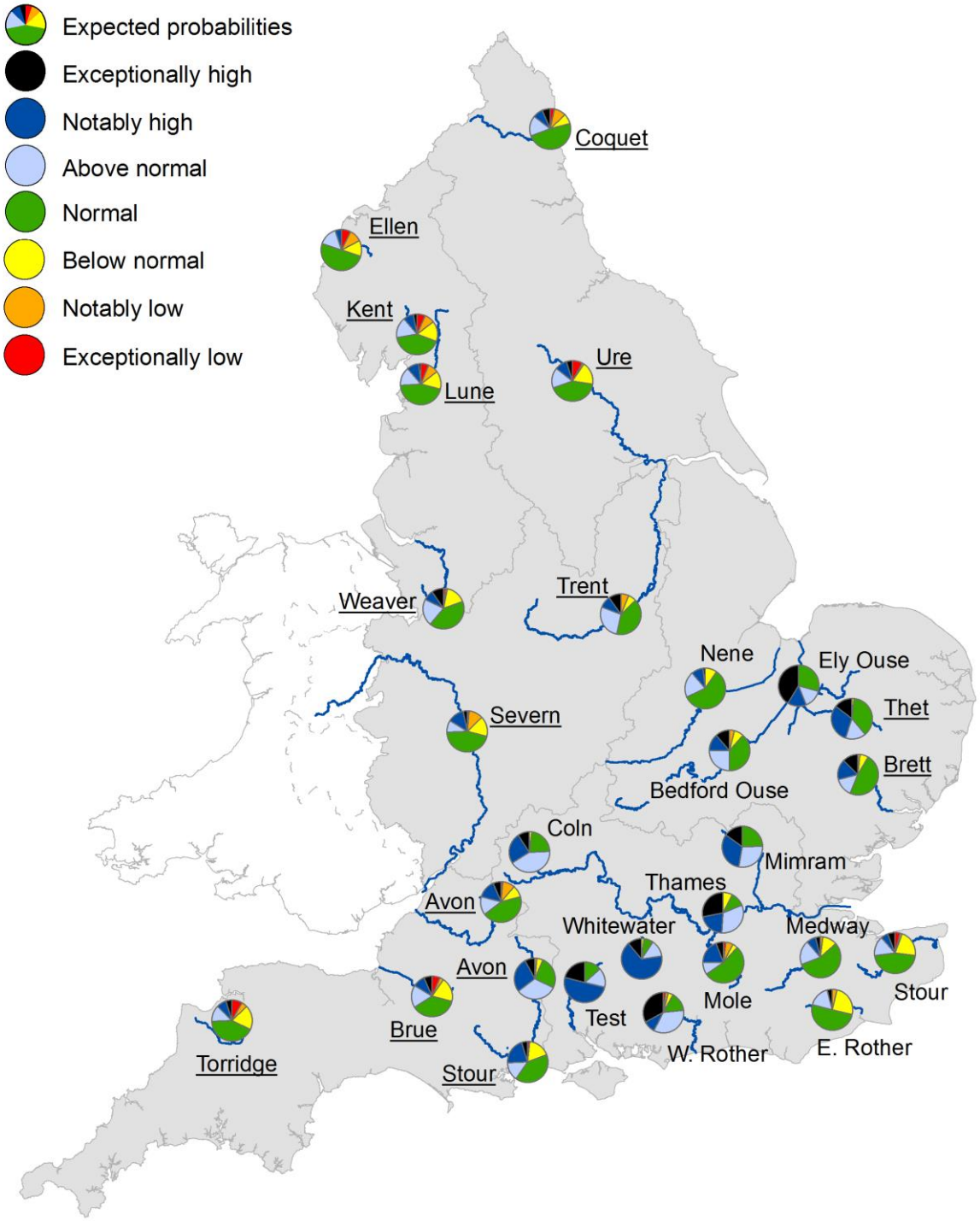
(Source: UK Centre for Ecology and Hydrology, Environment Agency)

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 December 2023 and March 2024. Rainfall statistics based on occurrence in the historic record since 1871. Projections for underlined sites produced by BGS.

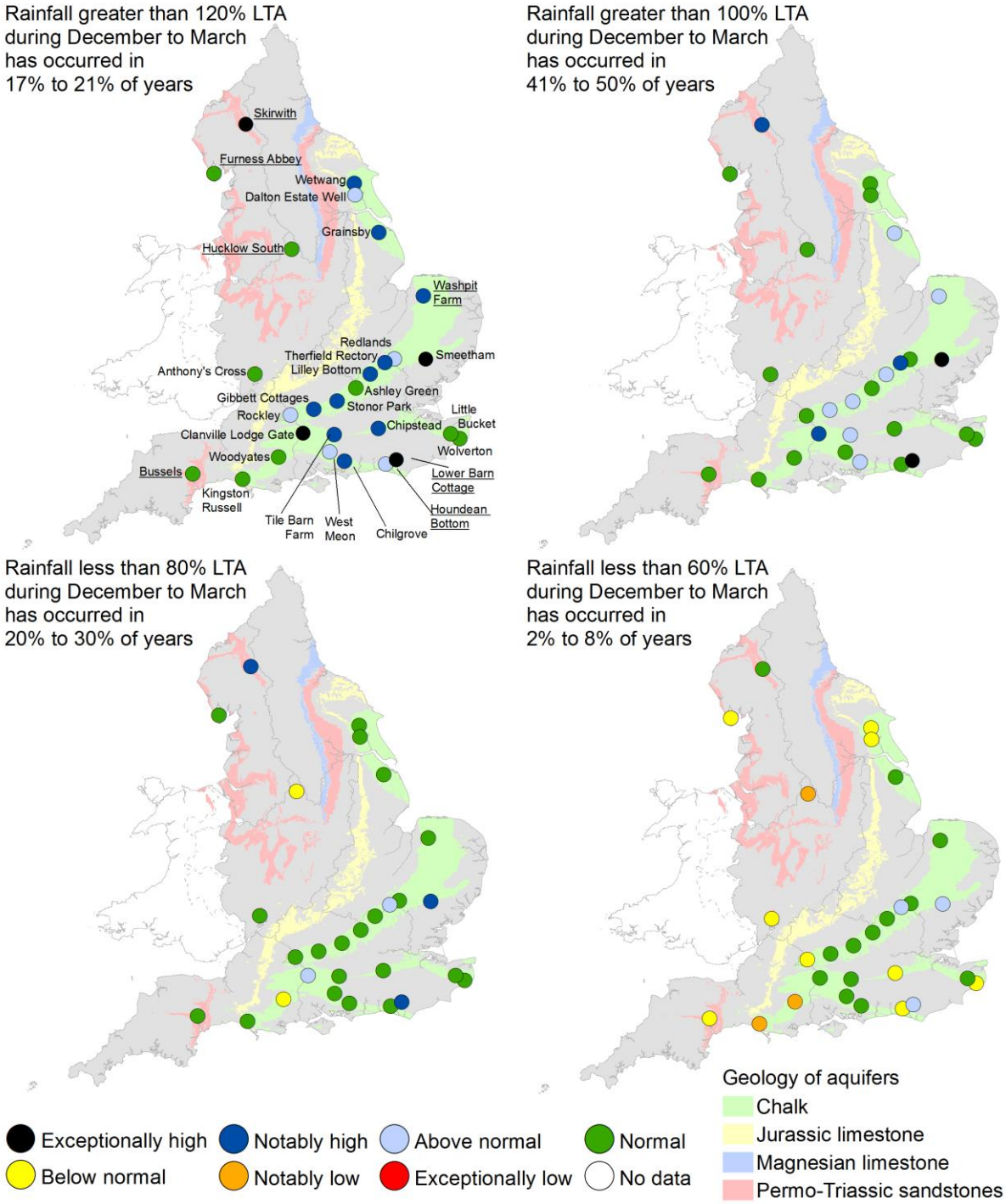


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Figure 7.6: Projected groundwater levels at key indicator sites at the end of September 2024. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall between December 2023 and September 2024. Rainfall statistics based on occurrence in the historic record since 1871. Projections for underlined sites produced by BGS.

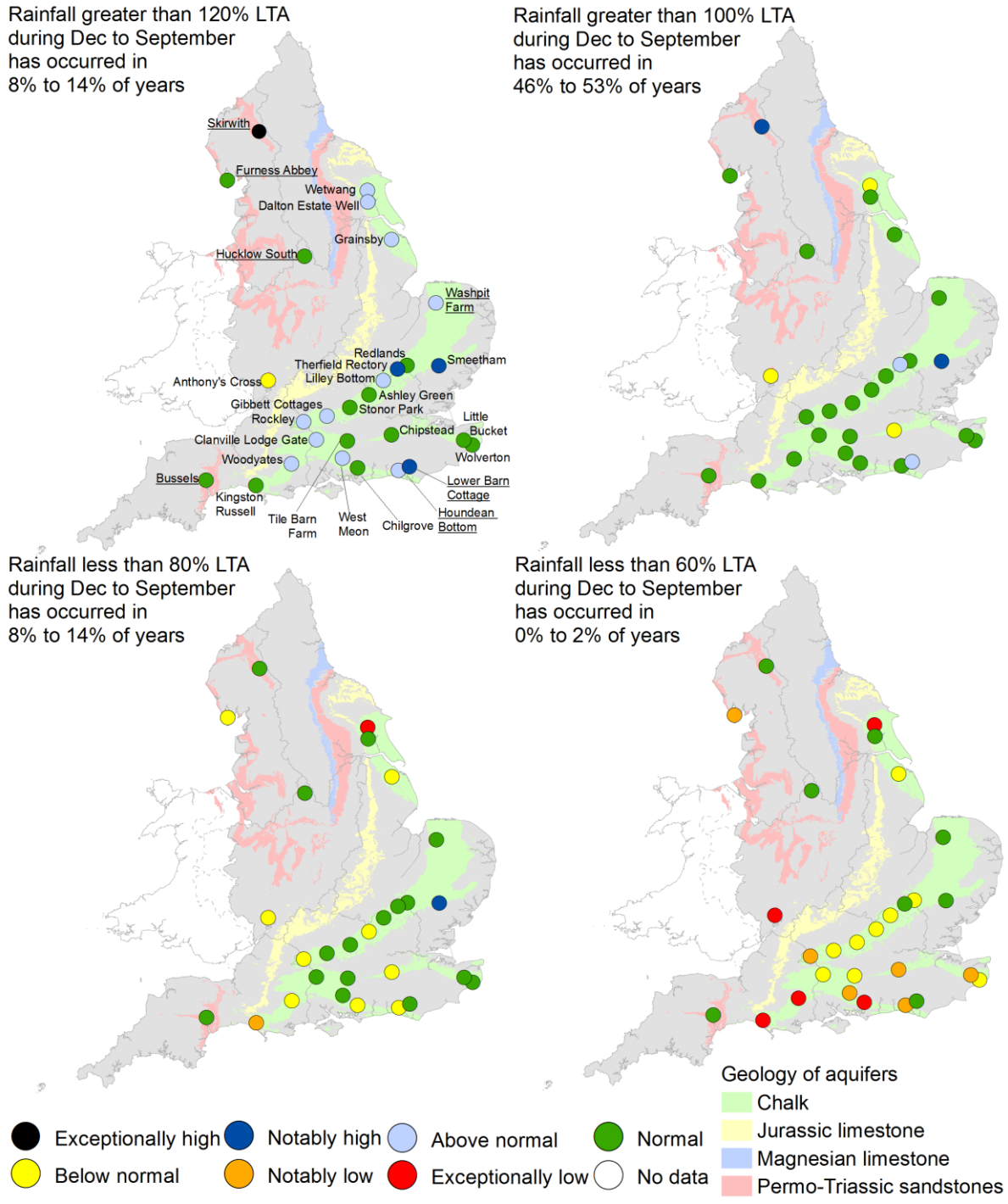

Figure 7.7: Probabilistic ensemble projections of groundwater levels at key indicator sites at the end of March 2024. Pie charts indicate probability, based on climatology, of the groundwater level at each site being e.g. exceptionally low for the time of year. Projections for underlined sites produced by BGS.

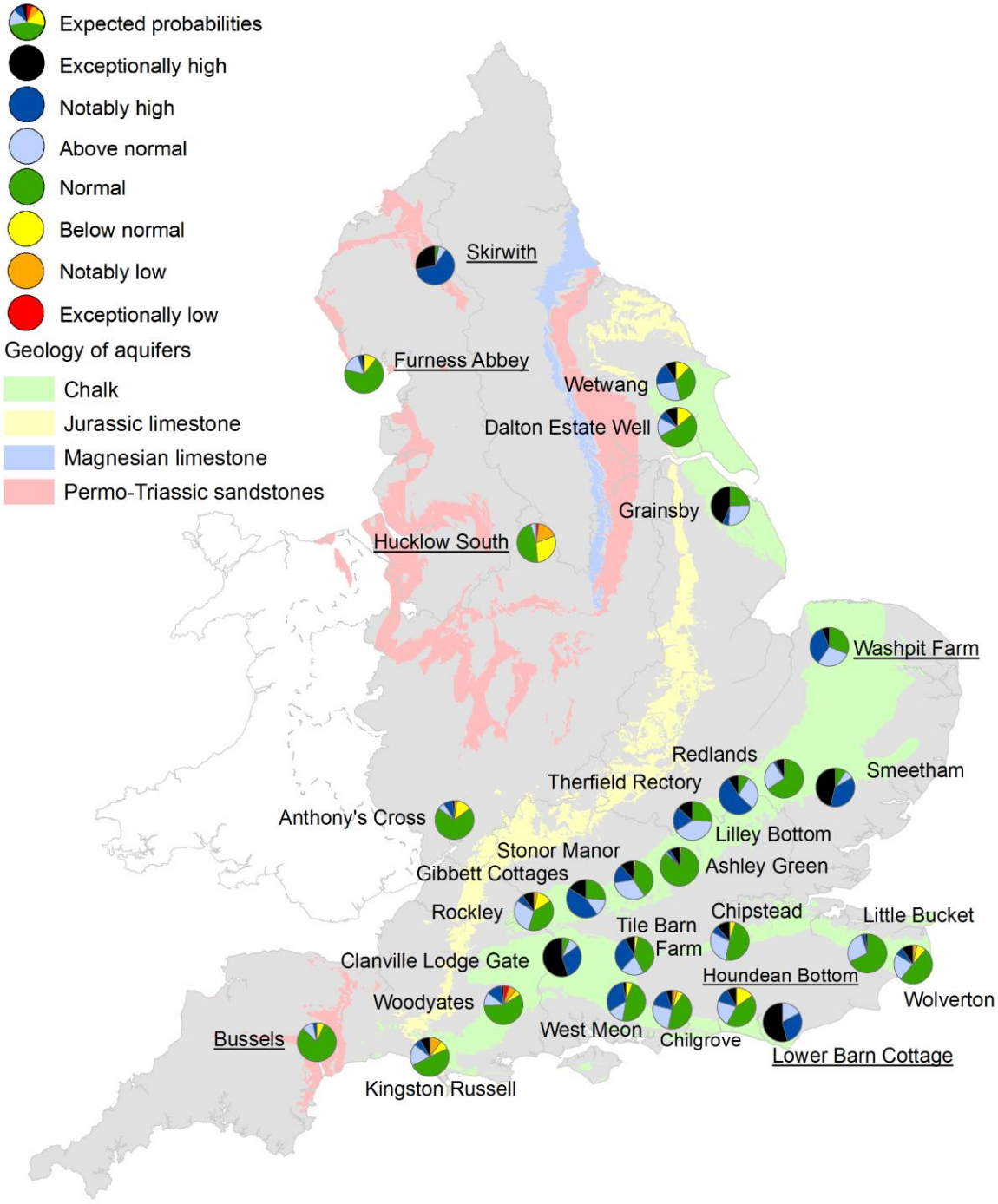

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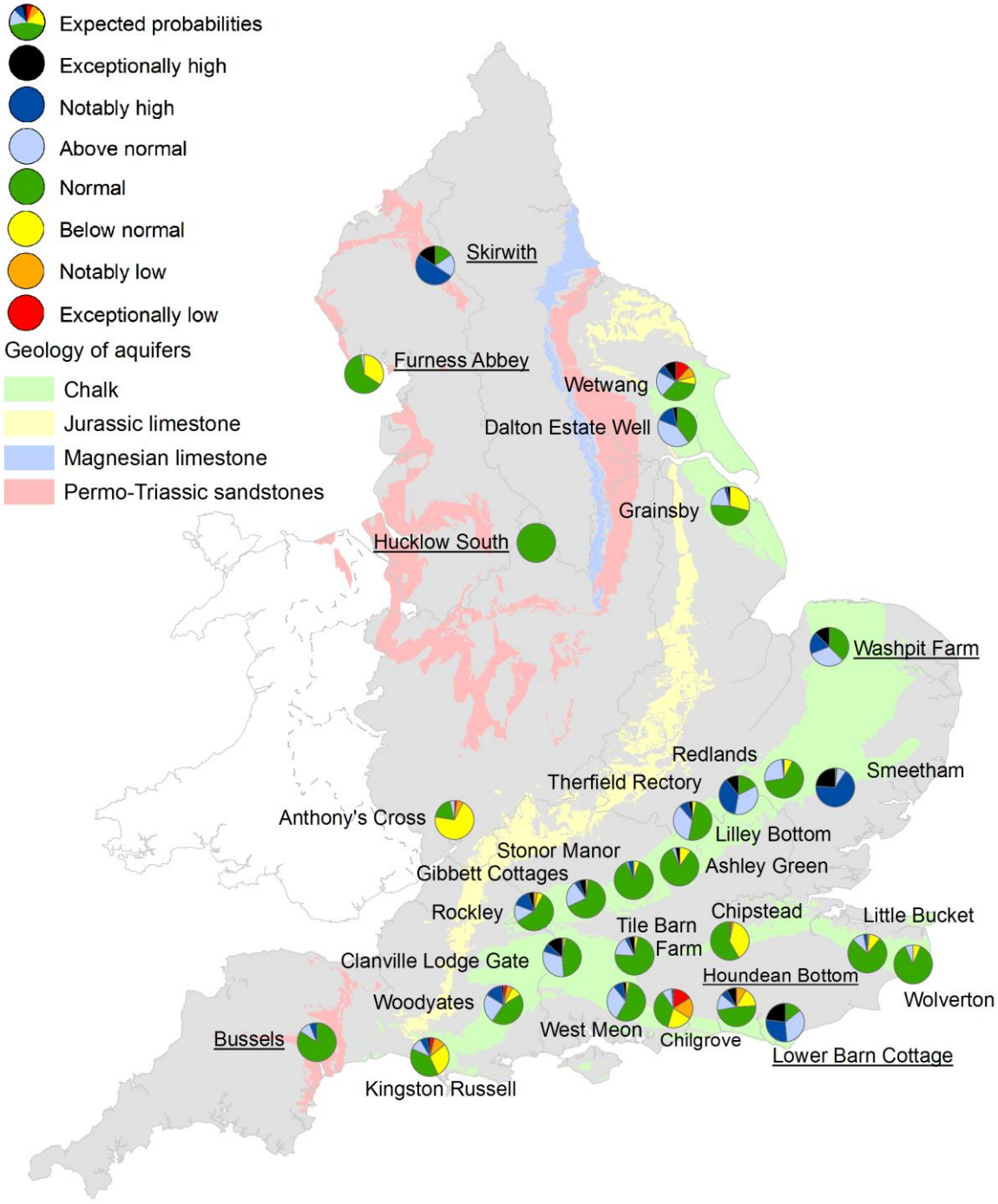
Figure 7.8: Probabilistic ensemble projections of groundwater levels at key indicator sites at the end of September 2024. Pie charts indicate probability, based on climatology, of the groundwater level at each site being e.g. exceptionally low for the time of year. Projections for underlined sites produced 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

9 Appendices

9.1 Rainfall table

Region	Nov 2023 rainfall % of long term average 1961 to 1990	Nov 2023 band	Sep 2023 to November 2023 cumulative band	Jun 2023 to November 2023 cumulative band	Dec 2022 to November 2023 cumulative band
East England	121	Normal	Notably high	Above normal	Above normal
Central England	115	Normal	Notably high	Notably high	Above normal
North East England	126	Normal	Notably high	Exceptionally high	Above normal
North West England	128	Above Normal	Notably high	Notably high	Notably high
South East England	160	Above Normal	Notably high	Notably high	Notably high
South West England	156	Above Normal	Notably high	Notably high	Notably high
England	136	Above Normal	Notably high	Notably high	Notably high

9.2 River flows table

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

North East	Heaton Mill	Till	No data	No data
North East	Doncaster	Don	Exceptionally high	Exceptionally high
North East	Haydon Bridge	South Tyne	Above normal	Above normal
North East	Tadcaster	Wharfe	Notably high	Notably high
North East	Witton Park	Wear	Notably high	Notably high
North West	Ashton Weir	Mersey	Exceptionally high	Above normal
North West	Caton	Lune	Above normal	Normal
North West	Ouse Bridge	Derwent	Normal	Normal
North West	Pooley Bridge	Eamont	Normal	Normal
North West	St Michaels	Wyre	Above normal	Above normal
North West	Ashbrook	Weaver	Notably high	Exceptionally high
South East	Allbrook & Highbridge	Itchen	Exceptionally high	Above normal
South East	Ardingley	Ouse	Notably high	Normal
South East	Feildes Weir	Lee	Notably high	Above normal
South East	Hansteads	Ver	Above normal	Above normal
South East	Hawley	Darent	Notably high	Normal
South East	Horton	Great Stour	Exceptionally high	Normal
South East	Kingston (naturalised)	Thames	Notably high	Above normal
South East	Lechlade	Leach	Above normal	Notably high

South East	Marlborough	Kennet	Exceptionally high	Exceptionally high
South East	Princes Marsh	Rother	Exceptionally high	Above normal
South East	Teston & Farleigh	Medway	Notably high	Above normal
South East	Udiam	Rother	Notably high	Above normal
South West	Amesbury	Upper Avon	Exceptionally high	Notably high
South West	Austins Bridge	Dart	Notably high	Normal
South West	Bathford	Avon	Notably high	Notably high
South West	Bishops Hull	Tone	Exceptionally high	Notably high
South West	East Stoke	Frome	Exceptionally high	Above normal
South West	Great Somerford	Avon	Exceptionally high	Notably high
South West	Gunnislake	Tamar	Notably high	Normal
South West	Hammoon	Middle Stour	Exceptionally high	Notably high
South West	Knapp Mill	Avon	No data	No data
South West	Lovington	Upper Brue	Exceptionally high	Notably high
South West	Thorverton	Exe	Exceptionally high	Above normal
South West	Torrington	Torridge	Notably high	Normal
South West	Truro	Kenwyn	Above normal	Normal
EA Wales	Manley Hall	Dee	Above normal	Notably high
EA Wales	Redbrook	Wye	Notably high	Above normal

9.3 Groundwater table

Geographic area	Site name	Aquifer	End of Nov 2023 band	End of Oct 2023 band
East	Grainsby	Grimsby Ancholme Louth Chalk	Notably high	Normal
East	Redlands Hall	Cam Chalk	Notably high	Normal
East	Hanthorpe	Cornbrash (South)	Notably high	Notably high
East	Smeetham Hall Cott.	North Essex Chalk	Exceptionally high	Notably high
East	Washpit Farm Rougham	North West Norfolk Chalk	Normal	Below normal
Central	Four Crosses	Grimsby Ancholme Louth Limestone	Normal	Normal
Central	Weir Farm	Bridgnorth Sandstone Formation	No data	No data
Central	Coxmoor	Permo Triassic Sandstone	Exceptionally high	Notably high
Central	Crossley Hill	Permo Triassic Sandstone	Normal	Normal
North East	Dalton Estate Well	Hull & East Riding Chalk	Exceptionally high	Notably high
North East	Aycliffe Nra2	Skerne Magnesian Limestone	Exceptionally high	Notably high
North East	Wetwang	Hull & East Riding Chalk	Exceptionally high	Notably high

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

9.4 Reservoir table

Geographic region	% Full	Average comparison
East England	84	Above average
Central England	94	Above average
North-east England	94	Above average
North-west England	84	Below average
South-east England	85	Above average
South-west England	80	Above average
England	88	Above average