Monthly water situation report: England

1 Summary - October 2023

It was the wettest October across England since 2000 with rainfall totals well above average across most of England, with almost all catchments receiving above average rainfall. Soil moisture deficits (SMD) reduced across England during October as soils became wetter due to the significant rainfall in many areas. River flows increased at all but one of the sites we report on and the majority of sites recorded above normal monthly mean flows. Groundwater levels increased at the majority of sites and remain classed as normal or higher at all but one site for the time of year. Reservoir stocks increased at two-thirds of the reservoirs or reservoir groups we report on, with over three quarters of reservoirs classed as normal or above normal for the time of year.

1.1 Rainfall

The October rainfall total for England was 147.2mm which represents 192% of the 1961 to 1990 LTA for the time of year (163% of the 1991 to 2020 LTA). Nearly all catchments received above average rainfall during October, while only five catchments receiving below average rainfall. The wettest hydrological area relative to the LTA was South Forty Foot and Hobhole catchment in east England which received 366% of LTA rainfall. The driest hydrological area was the Esk (Cumbria) in north-west England which received 86% of LTA rainfall in October. (Figure 2.1)

October rainfall totals were classed as above normal or higher for the time of year in most catchments across England. The majority of catchments were classed as notably high with nearly a third of catchments were classed as exceptionally high, predominately across central and east England. Twelve catchments, Don; Isle of Wight; Sussex Coast; Lower Trent; Upper Trent; Shropshire Plains; Cam; Little Ouse and Lark; Steeping Great Eau and Long Eau; Witham to Chapel Hill; South Forty Foot and Hobhole; Lower Welland and Nene all recorded the wettest ever October since records began in 1871. In south-west and north-west England rainfall was classed as normal in eleven hydrological areas during October. At a regional scale only north-west England received normal rainfall for October. Rainfall totals were above normal in south-west and notably high in south-east England. North-east, central and east England all recorded exceptionally high rainfall and October rainfall totals for England as whole were also exceptionally high. It’s notable that Central England recorded the second wettest October since records began in 1871 and the wettest since 1903 and north-east England recorded the fourth wettest October since 1871. (Figure 2.2)

The 3 month cumulative rainfall totals were above normal or higher at more than four-fifths of catchments across England. Over a fifth of catchments had rainfall totals classed as exceptionally high for this period. The 6 month cumulative rainfall totals show a similar picture being classed as above normal or higher across the majority of catchments in England.

The twelve month cumulative rainfall totals were exceptionally high in more than half of catchments across England. The remaining catchments were either above normal or notably high with only two catchments, the Tweed in north-east England and the Esk (Cumbria) in north-west England, classed as normal. The 12 month cumulative rainfall total to October was the wettest since records began in 1871 for the SW Isle of Wight; the West Sussex chalk; the River Test and the east Hampshire chalk catchments in south-east England. (Figure 2.3)

1.2 Soil moisture deficit

Soil moisture deficits (SMD) reduced across England during October as soils became wetter in many areas, due to above average rainfall. Soil moisture deficits across south-east and east England saw a significant decreases through October. (Figure 3.1)

Across all of England SMDs were below the LTA, leaving soils wetter than expected at the end of October. 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

October monthly mean river flows increased at all but one of the indicator sites we report on. All indicator sites were normal or higher for the time of year, with the majority of sites classed as above normal. A quarter of sites, predominately in south-west England particularly Wessex, were classed as notably high. Nearly a fifth of sites, mainly in central and east England, were exceptionally high monthly mean flows for the time of year. Eleven sites across the north-west, south-east and south-west England all had monthly mean river flows classed as normal for October. (Figure 4.1)

Monthly mean river flows increased at all the regional index sites in October. Flows at Marston-on-Dove in central England on the River Dove which meant flows were classed as notably high. The River Exe in south west England, the naturalised flows on the River Thames in the south-east, the Bedford Ouse in east England and Haydon Bridge on the River South Tyne were all above normal for the time of year. The River Lune in north-west England and Horton on the Great Stour in south-east England recorded normal monthly mean river flows for October. (Figure 4.2)

1.4 Groundwater levels

By the end of October, groundwater levels had increased at half of the indicator sites we report on. Apart from one site, Washpit Farm in east England which was classed as below normal, all groundwater sites were classed as normal or higher at the end of October. The majority of sites were classed as notably high for the time of year. Over a third of sites were classed as normal and groundwater levels at Priors Heyes in north-west England remain exceptionally high as West Cheshire Sandstone continue to recover from the effects of historic abstraction. (Figure 5.1)

End of October groundwater levels at the major aquifer index sites at Chilgrove in the Chichester Chalk, Jackaments Bottom in the Burford Jurassic Limestone and Dalton Estate in the Hull and East Riding Chalk all increased to be classed as notably high at the end of October. Above normal levels were recorded at Skirwith in the Carlisle Basin and Eden Valley Sandstone and in the East Kent Stour Chalk at Little Bottom. Redlands Hall and Stonor Park, in the Cam and Ely Ouse Chalk and South West Chilterns chalk respectively, recorded normal groundwater levels for the time of year. (Figure 5.2)

1.5 Reservoir storage

Reservoir storage during October increased at nearly two-thirds of the reservoirs or reservoir groups we report on. At the end of October over three-quarters of reservoirs or reservoir groups are classed as either normal or above normal. Six reservoirs recorded storage increases of 10% with Blithfield and Derwent Valley in central England registering the largest increases of 36% and 21% respectively. The Teesdale group in north east England and Vyrnmy in north Wales supplying north-west England are both classed as exceptionally high for the time of year. In contrast, three sites remain below normal, Colliford and Roadford in south-west England and Ardingley in south east England .The Dee System in Wales remains notably low due to ongoing reservoir maintenance. (Figure 6.1)

At a regional scale, total reservoir storage in increased across all areas of England at the end of October with the exception of south east England. For England as a whole, total reservoir storage has increased to 84%. (Figure 6.2)

1.6 Forward look

November has started wet in many parts of the England, with the east, south-east and south-west already receiving more than half of the LTA for the month. Through the rest of the month conditions are likely to remain unsettled, with western and northern areas seeing most of the

rainfall, although southern areas may have some drier spells. Temperatures are likely to remain mild for the time of year, although colder nights remain possible during settled conditions, particularly in the south.

For the 3 month period for the UK from November to January there is a higher than normal likelihood of wet conditions, with spells of wet and windy weather throughout the period. The likelihood of cold conditions is higher than recent years, with impacts more likely later in the period.

1.7 Projections for river flows at key sites

By the end of March 2024, river flows across the whole of England have the greatest chance of being above normal or higher, except in the north-west where river flows have the greatest chance of being normal or higher. By the end of September 2024, river flows across the whole of England have the greatest chance of being above normal or higher. 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 of being above normal or higher. In 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, central and east England. In south west and south east 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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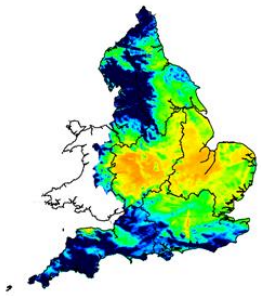
2 Rainfall

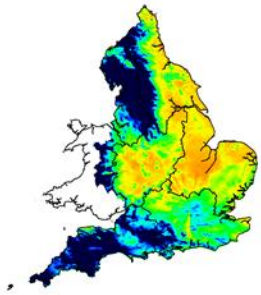
2.1 Rainfall map

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.

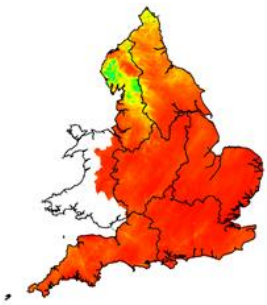
December 2022



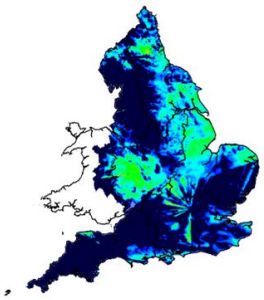
January 2023



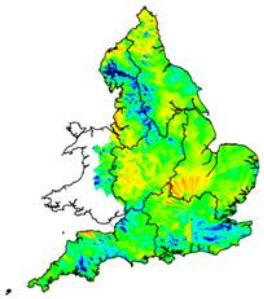
February 2023



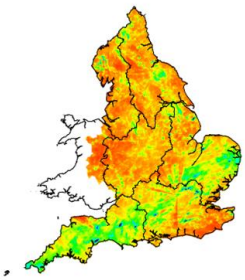
March 2023



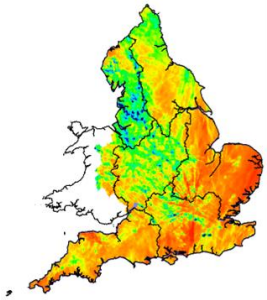
April 2023



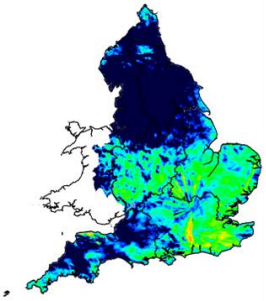
May 2023



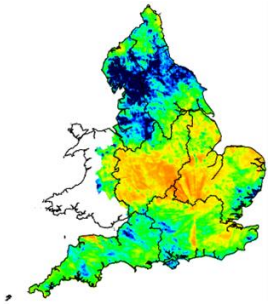
June 2023



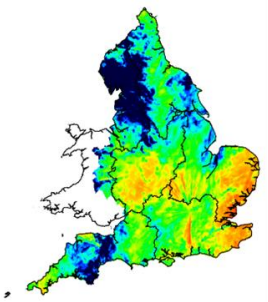
July 2023



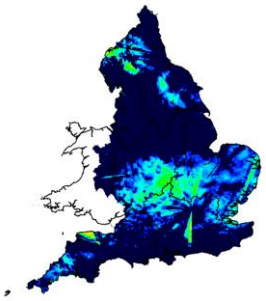
August 2023



September 2023



October 2023



Map Legend

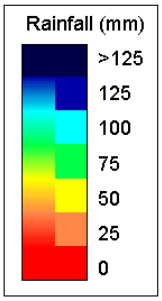
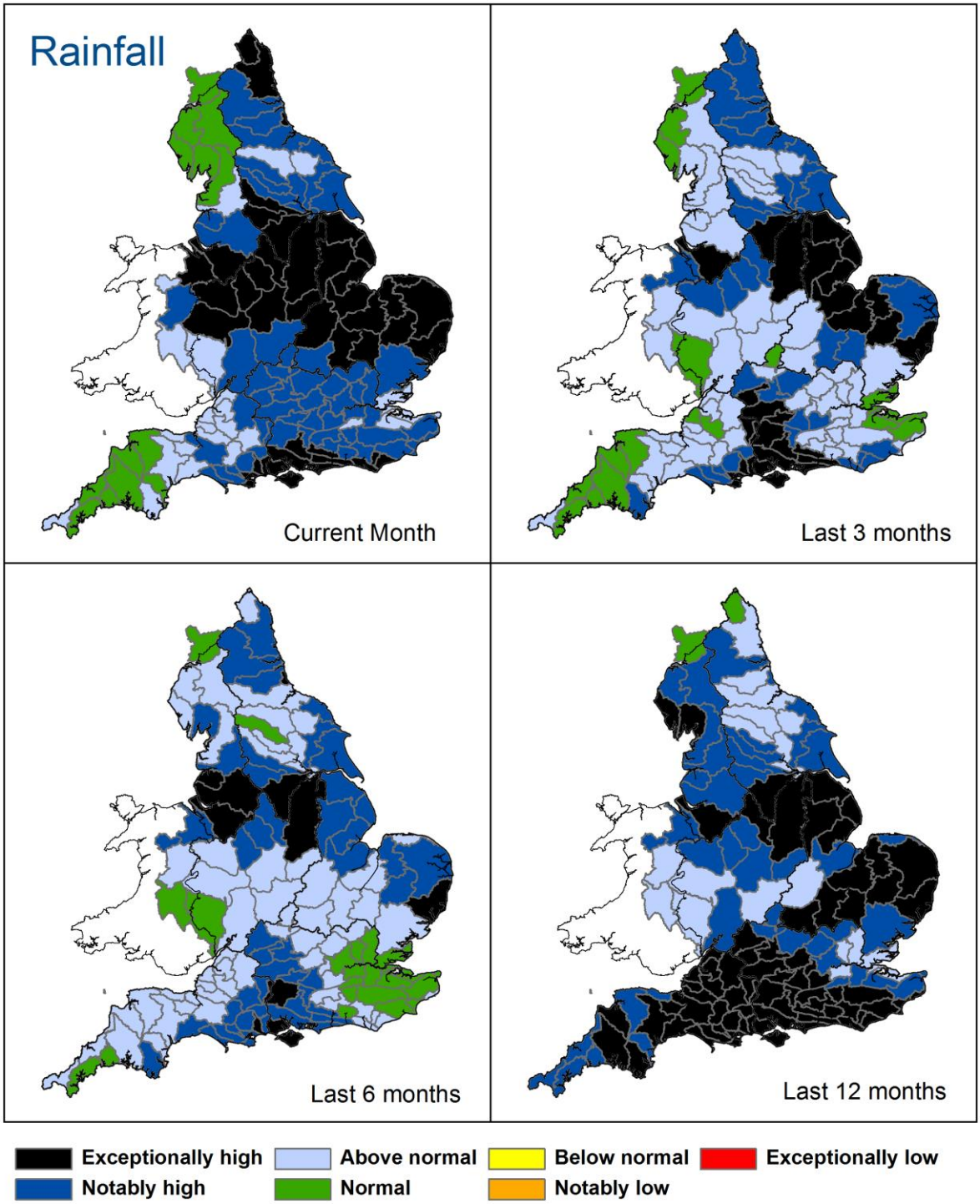


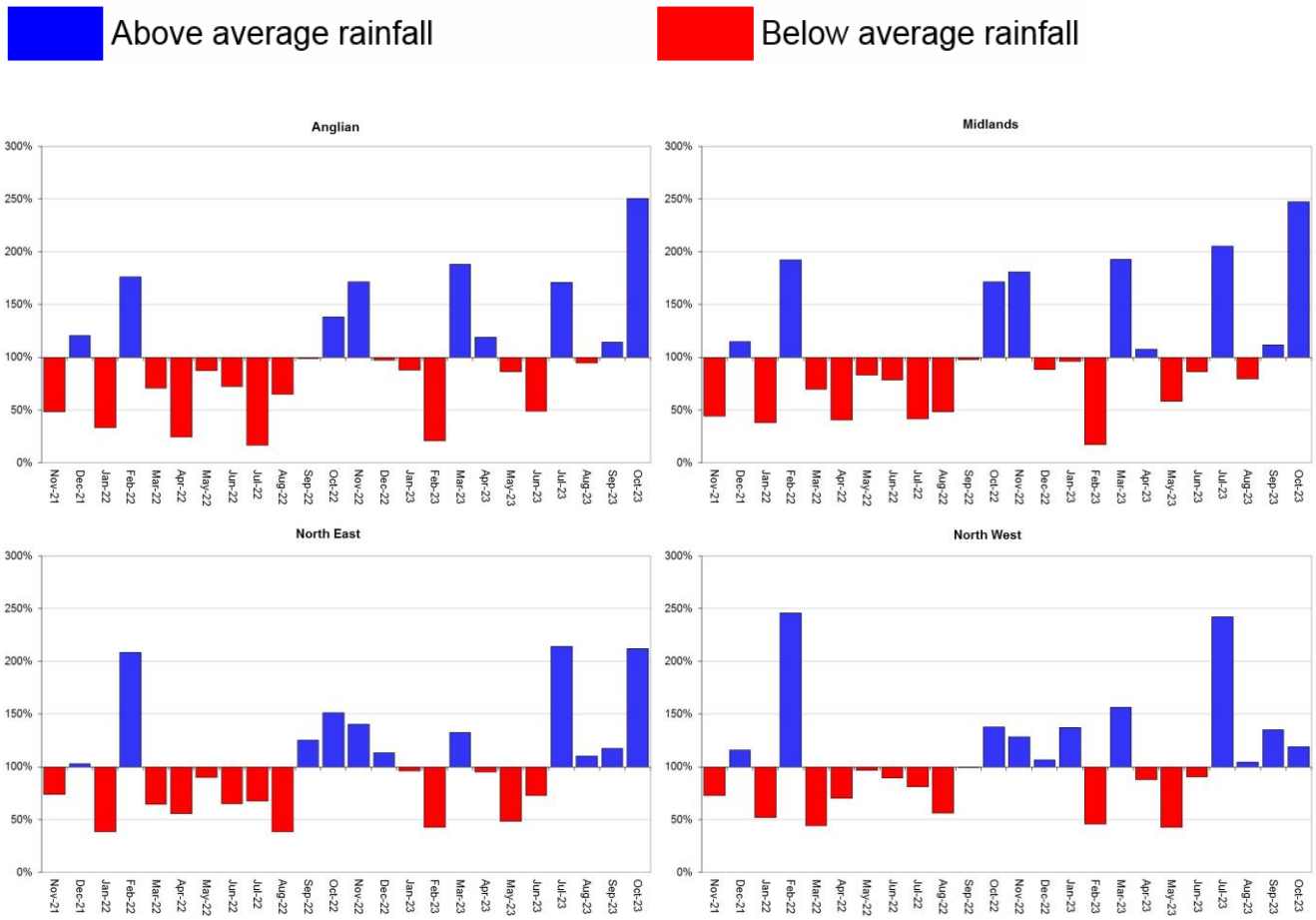
Figure 2.2: Total rainfall for hydrological areas across England for the current month (up to 31 October 2023), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals.

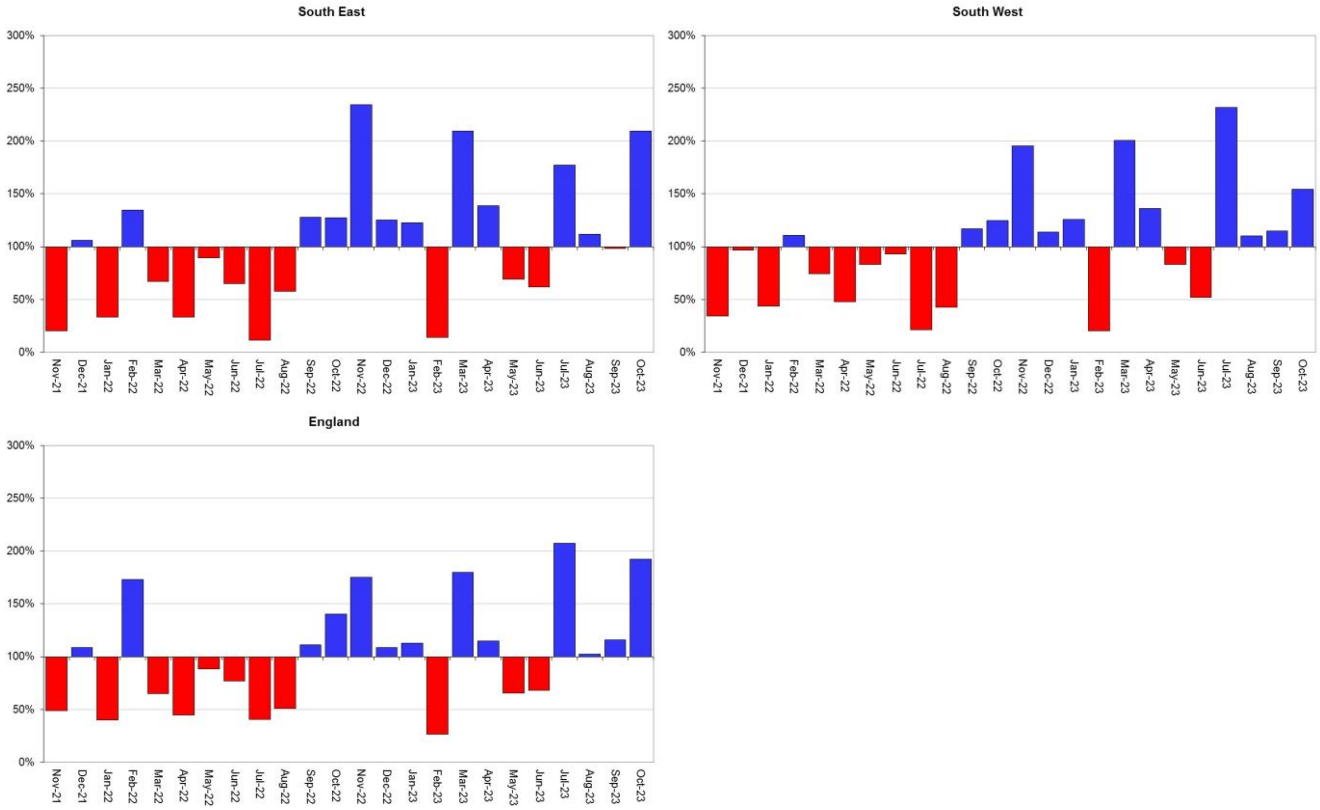


Rainfall data for 2023, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 100024198, 2023). Rainfall data prior to 2023, extracted from Met Office HadUK 1km gridded rainfall dataset derived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

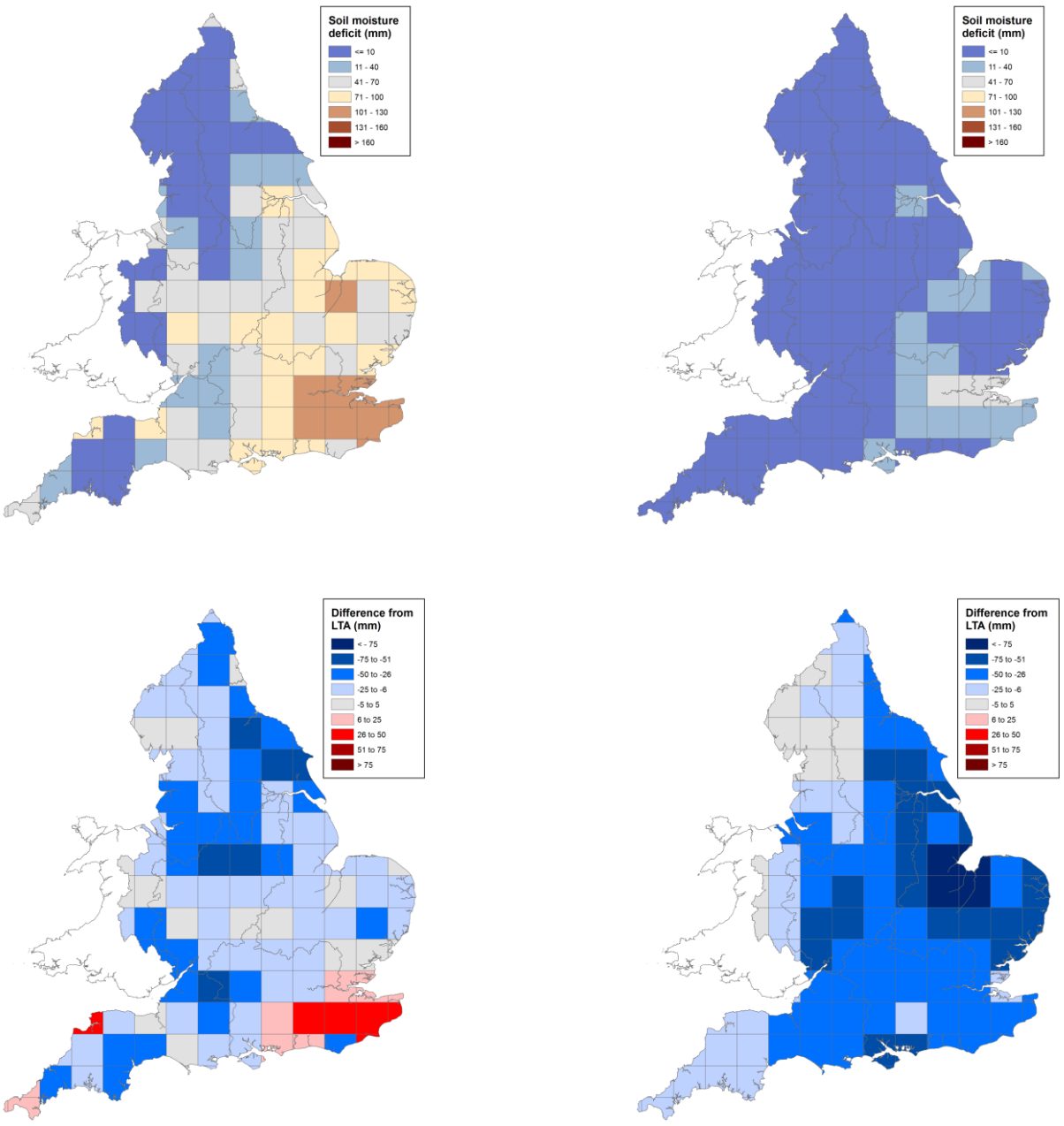
3 Soil moisture deficit

3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for weeks ending, 27 September 2023 (left panel) and 01 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.

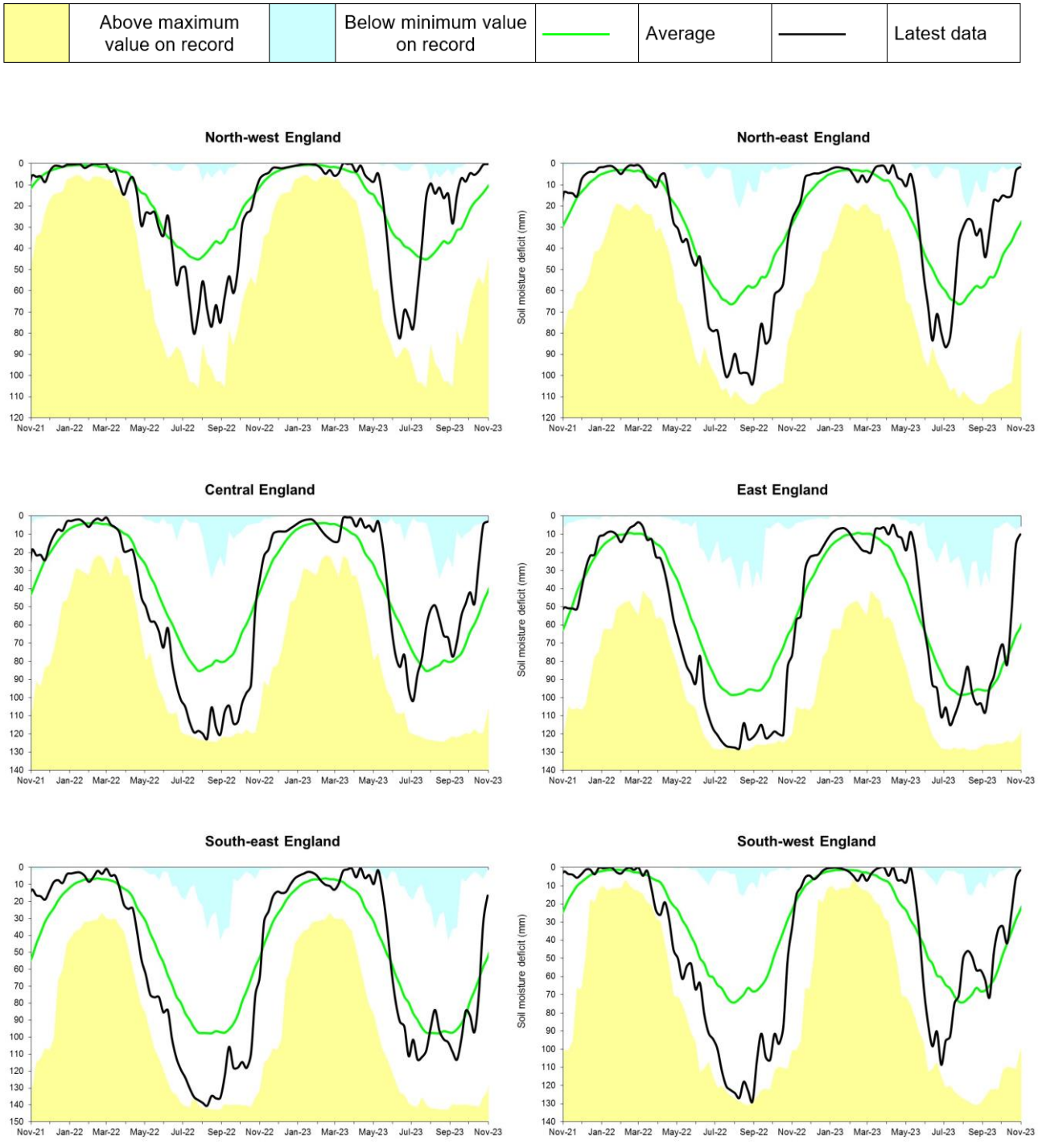
End of September 2023

End of October 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.



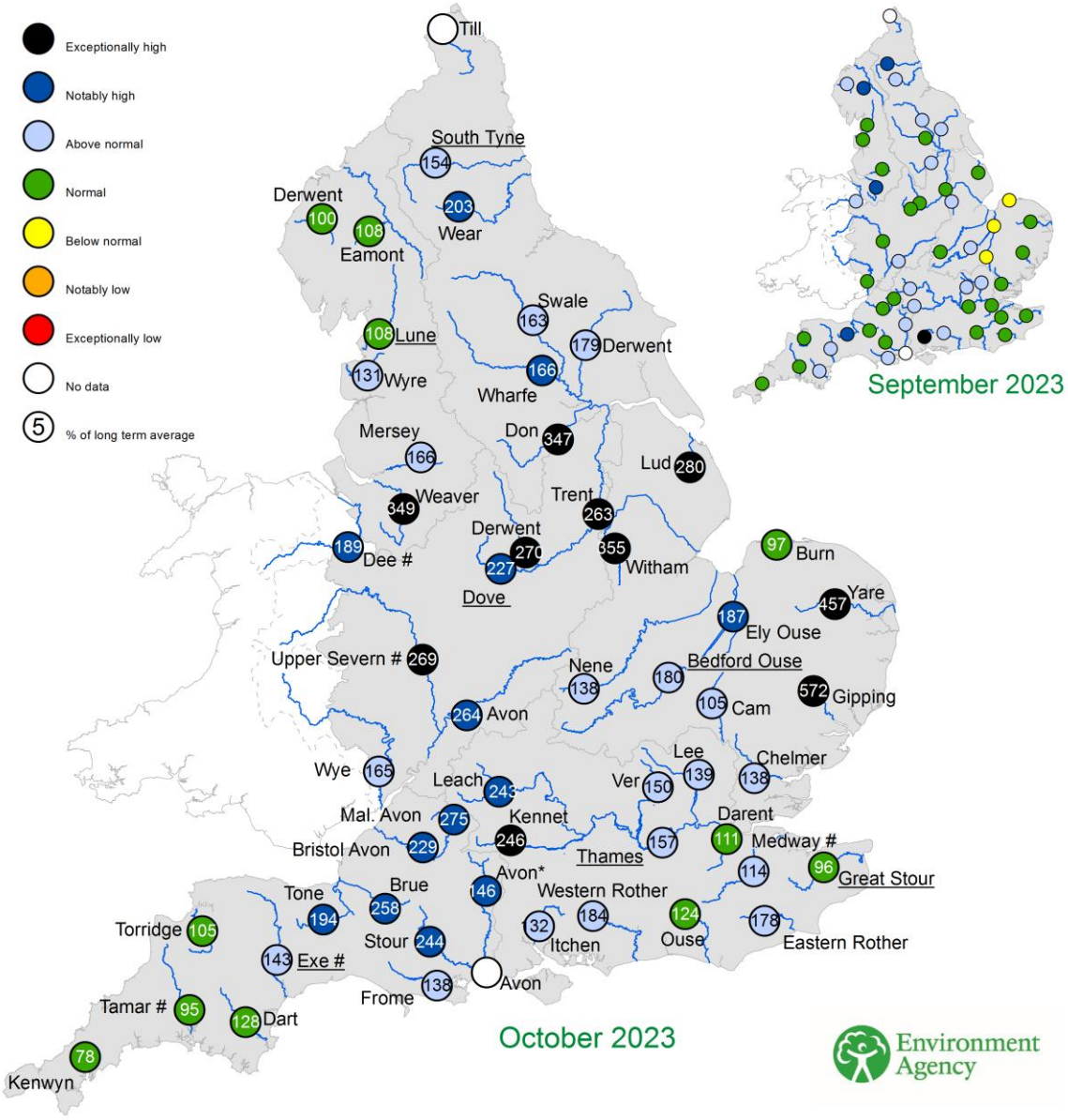
(Source: Met Office. Crown copyright, 2023).

4 River flows

4.1 River flow map

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

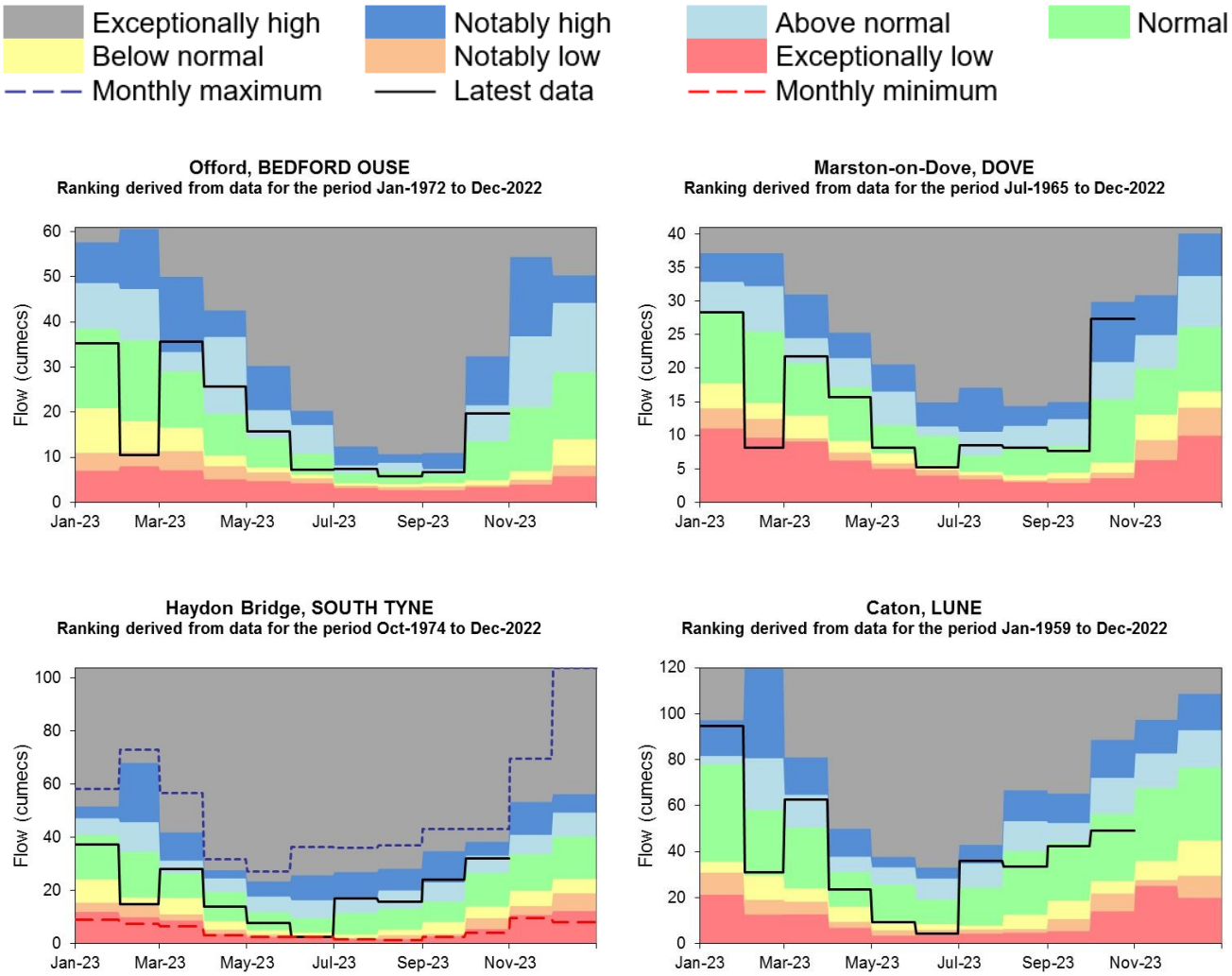
Naturalised flows are provided for the River Thames and the River Lee. +/- Monthly mean flow is the highest/lowest on record for the current month (note that record length varies between sites). * Flows may be overestimated at these sites – data should be treated with caution.
Flows may be impacted at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

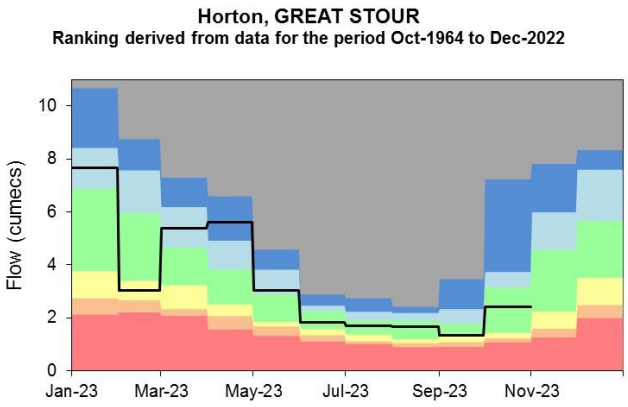


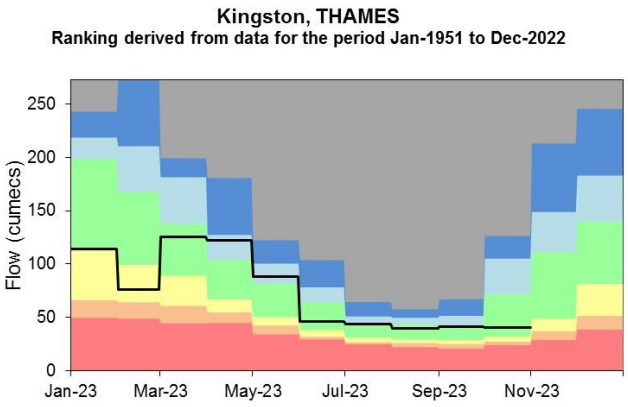
(Source: Environment Agency). Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

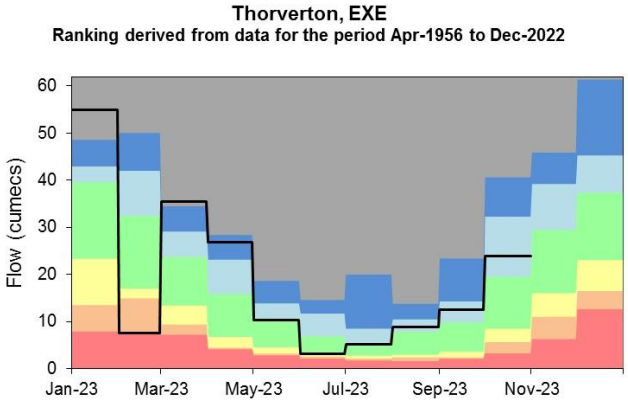
4.2 River flow charts

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.









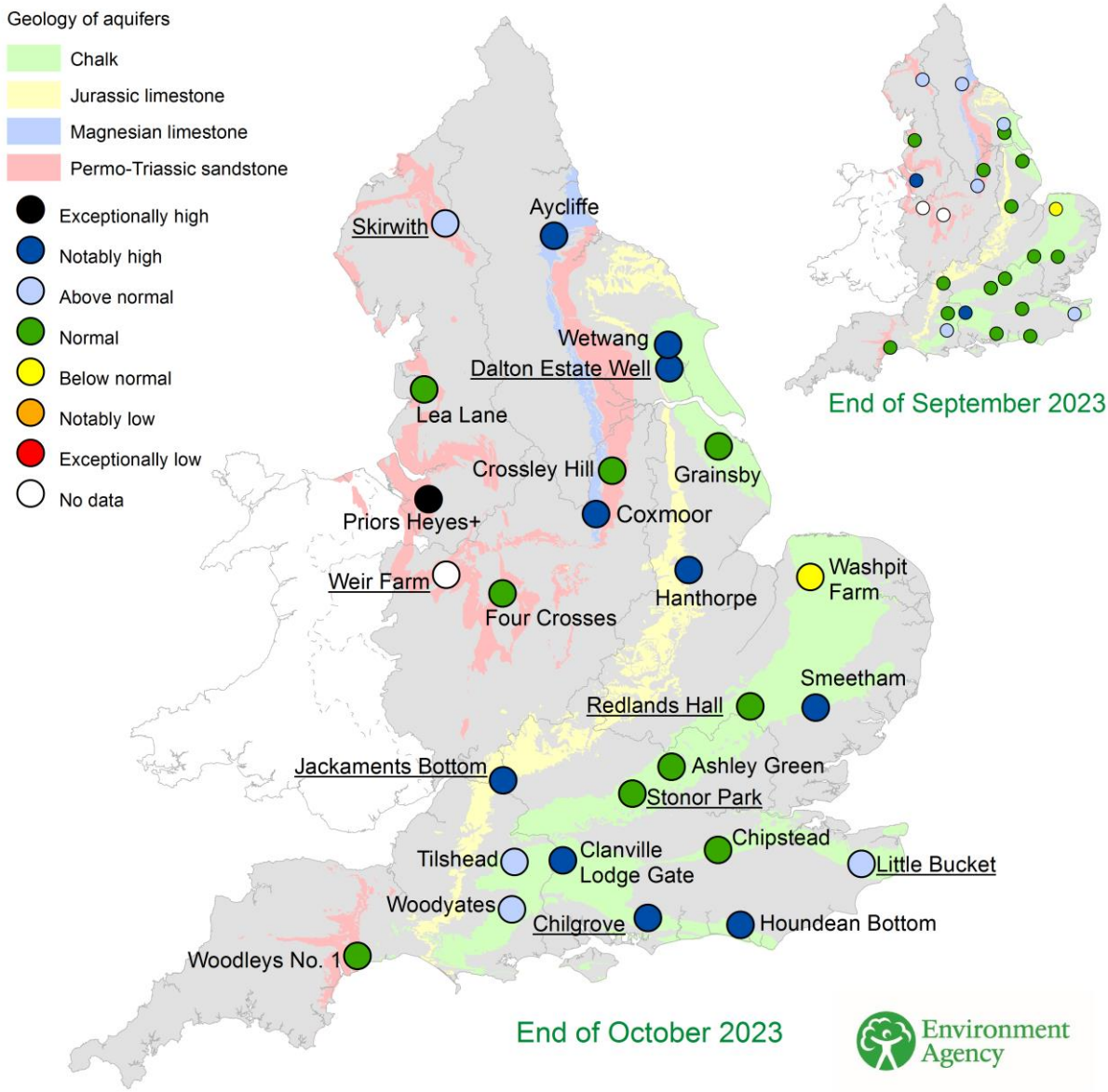
(Source: Environment Agency).

5 Groundwater levels

5.1 Groundwater levels map

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

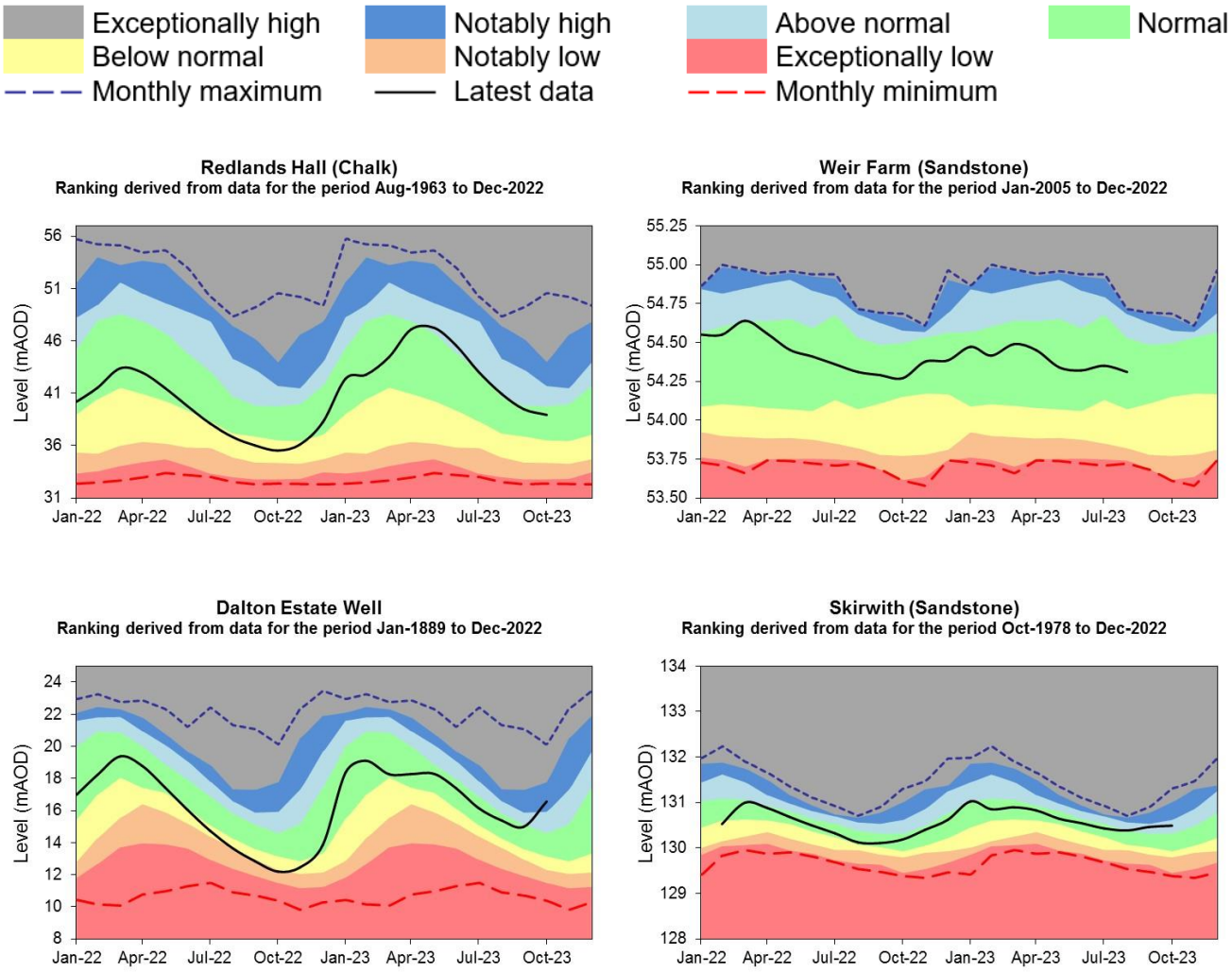
Redlands Hall and Aycliffe are manually dipped at different times during the month and so may not be fully representative of month end levels. Levels at Priors Heyes remain high compared to historic levels because the aquifer is recovering from the effects of historic abstraction. +/- End of month groundwater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

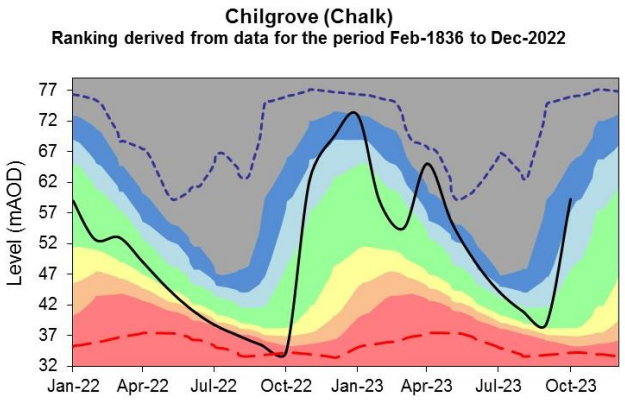


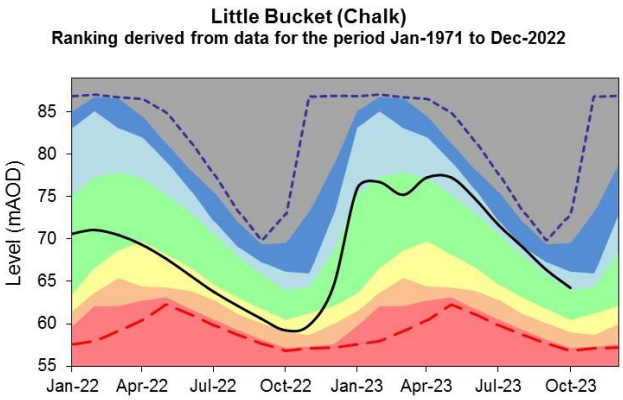
(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

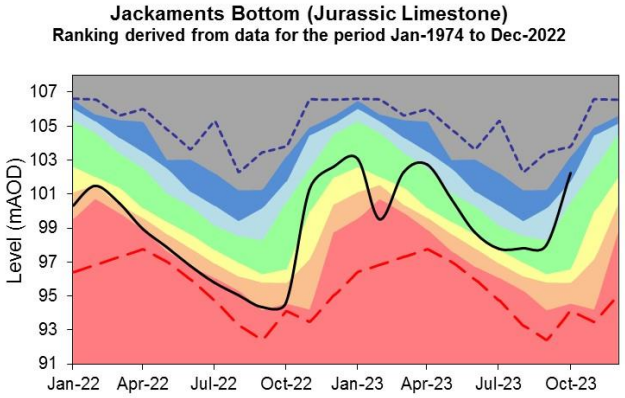
5.2 Groundwater level charts

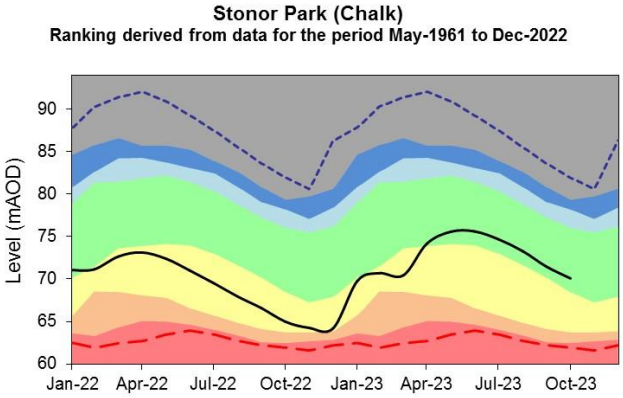
Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. Past 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.









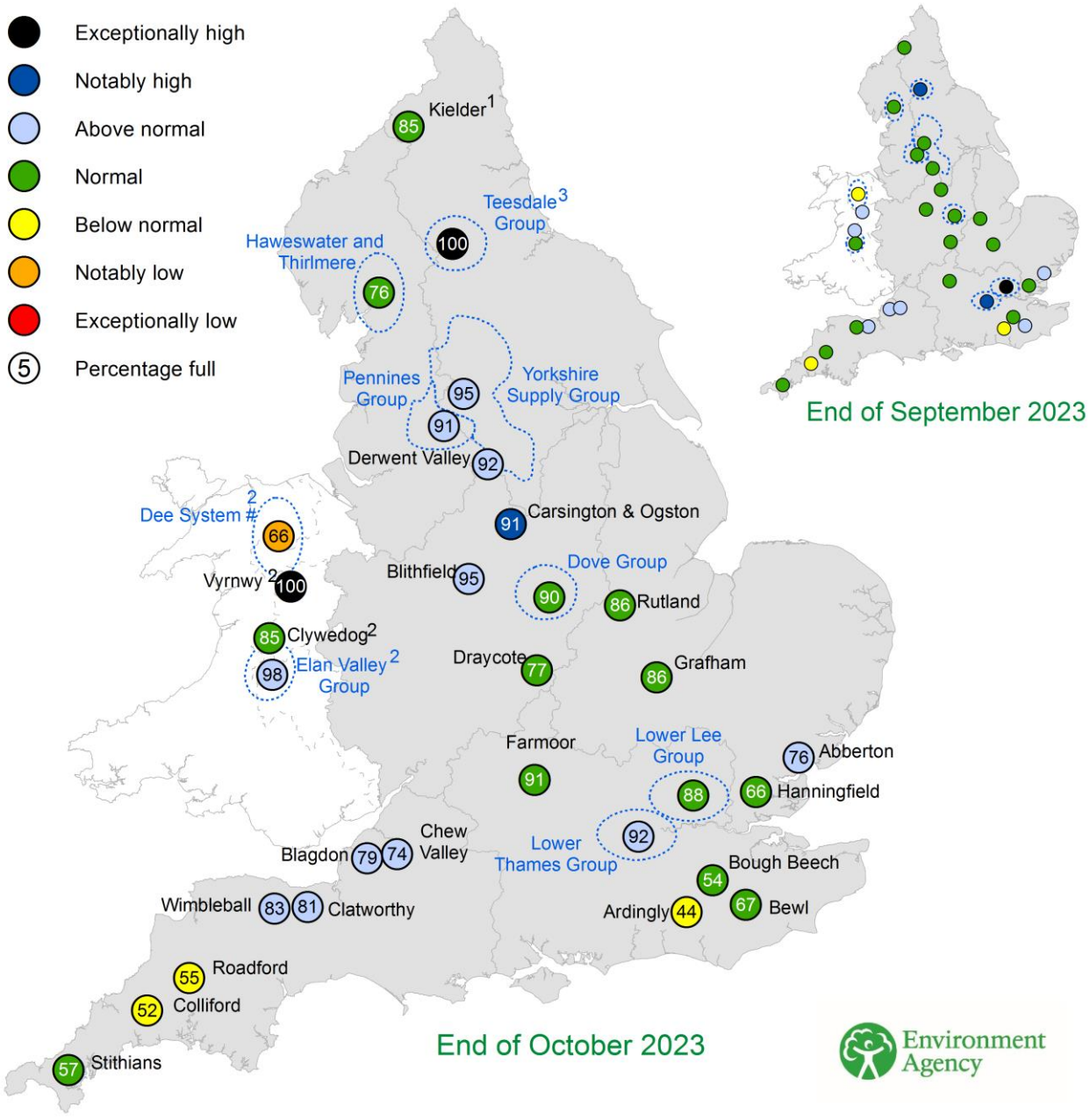


(Source: Environment Agency, 2023)

6 Reservoir storage

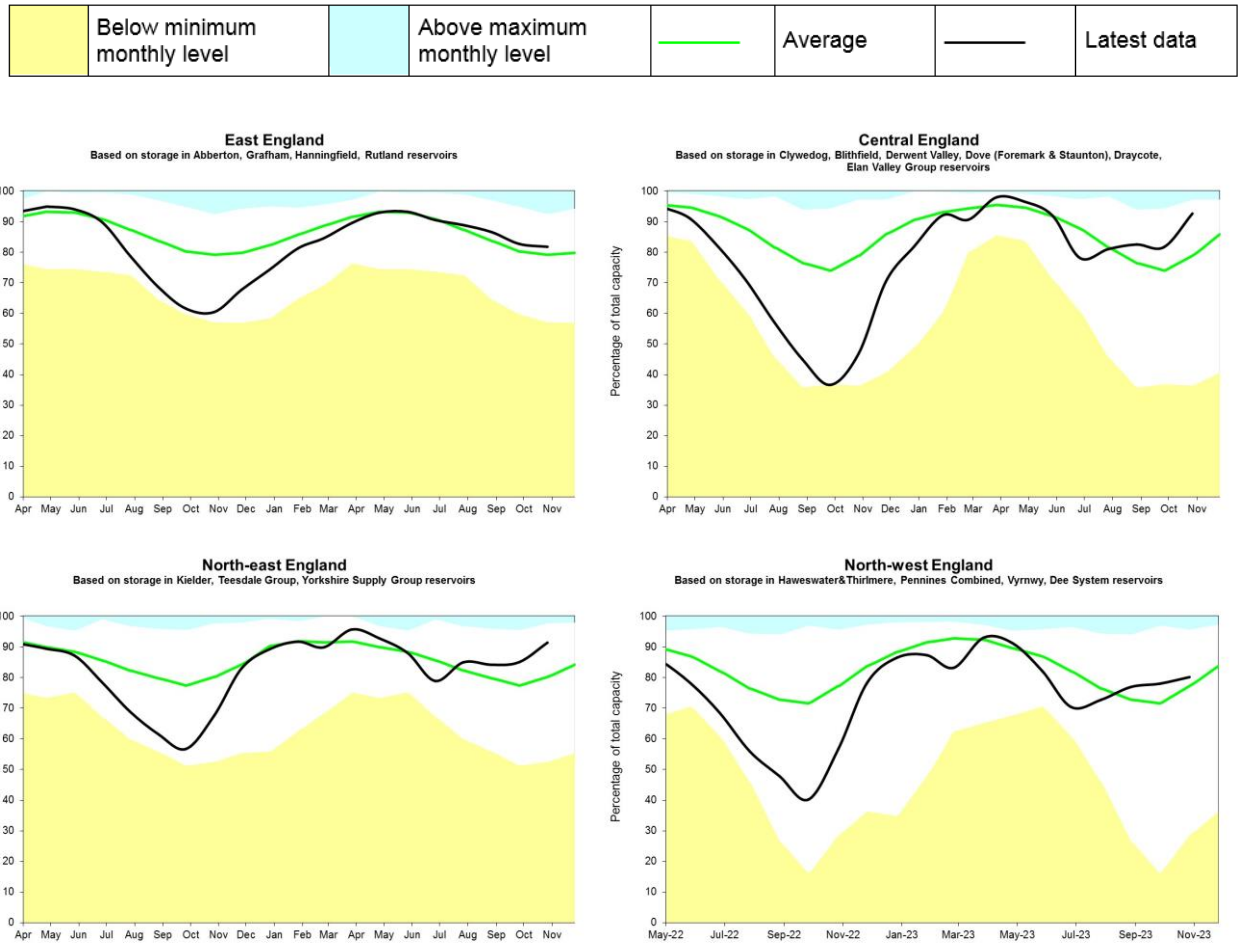
6.1 Reservoir storage map

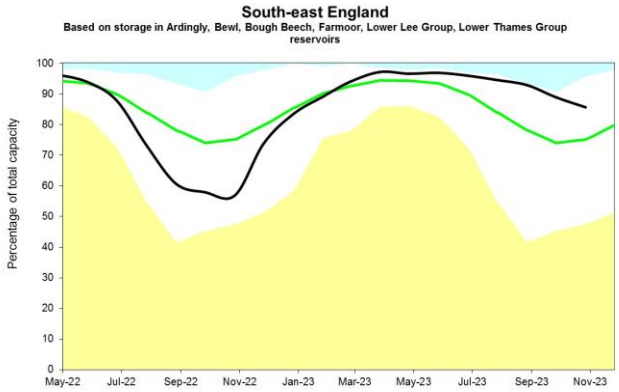
Figure 6.1: Reservoir stocks at key individual and groups of reservoirs at the end of September 2023 and October 2023 as a percentage of total capacity and classed relative to an analysis of historic September and October values respectively. Note: Classes shown may not necessarily relate to control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

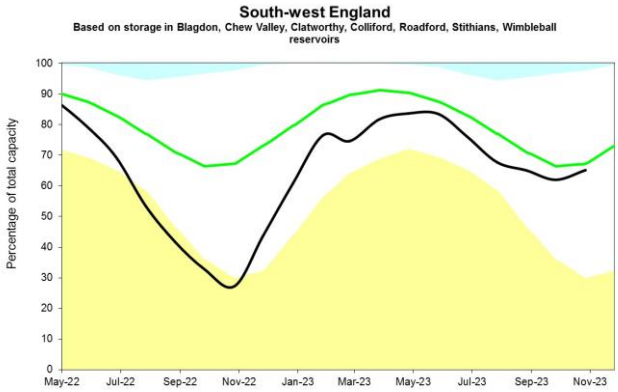


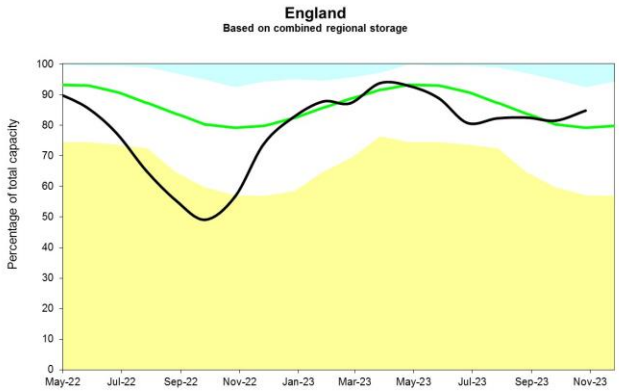
6.2 Reservoir storage charts

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.







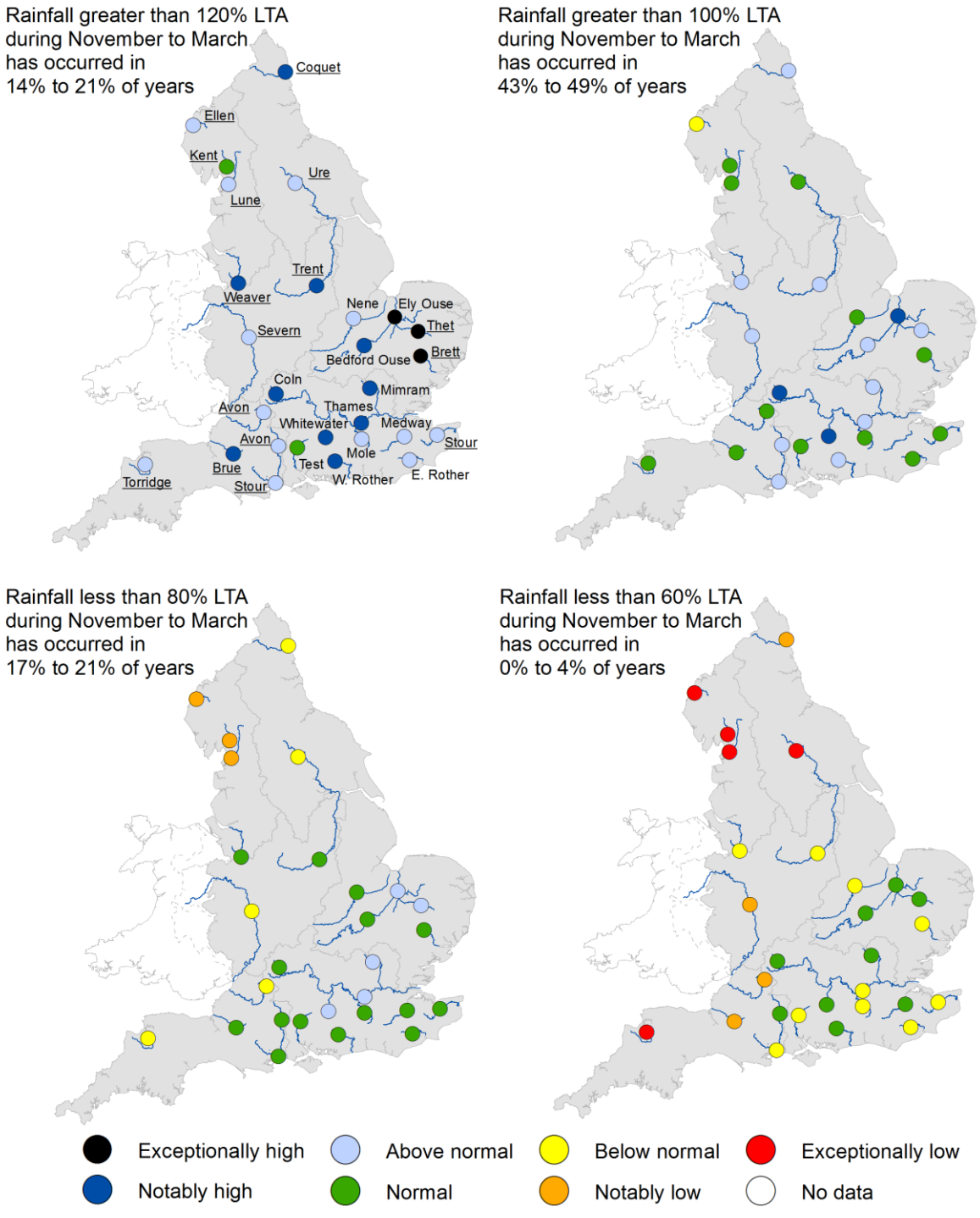


(Source: Water Companies).

7 Forward look

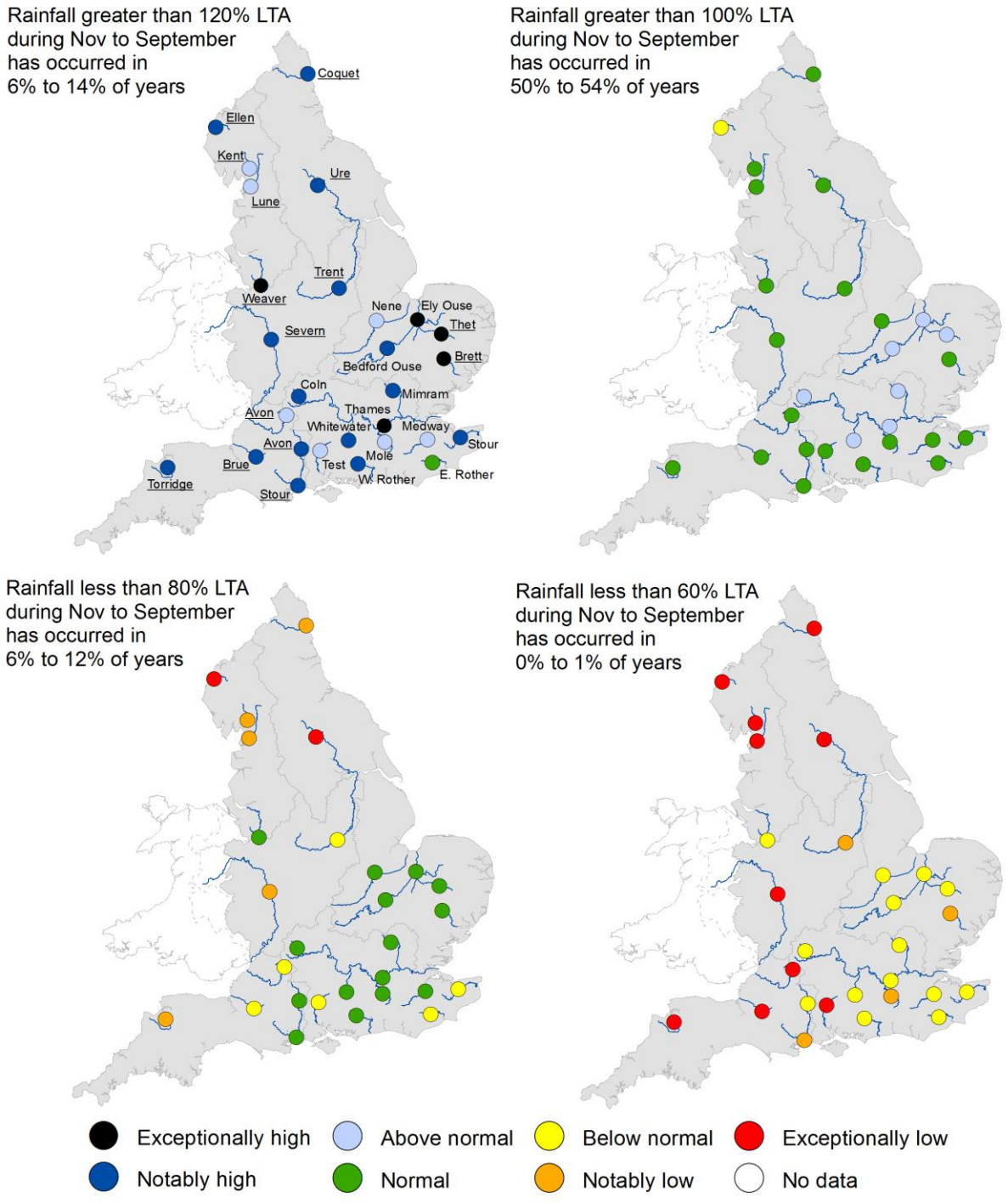
7.1 River flow

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



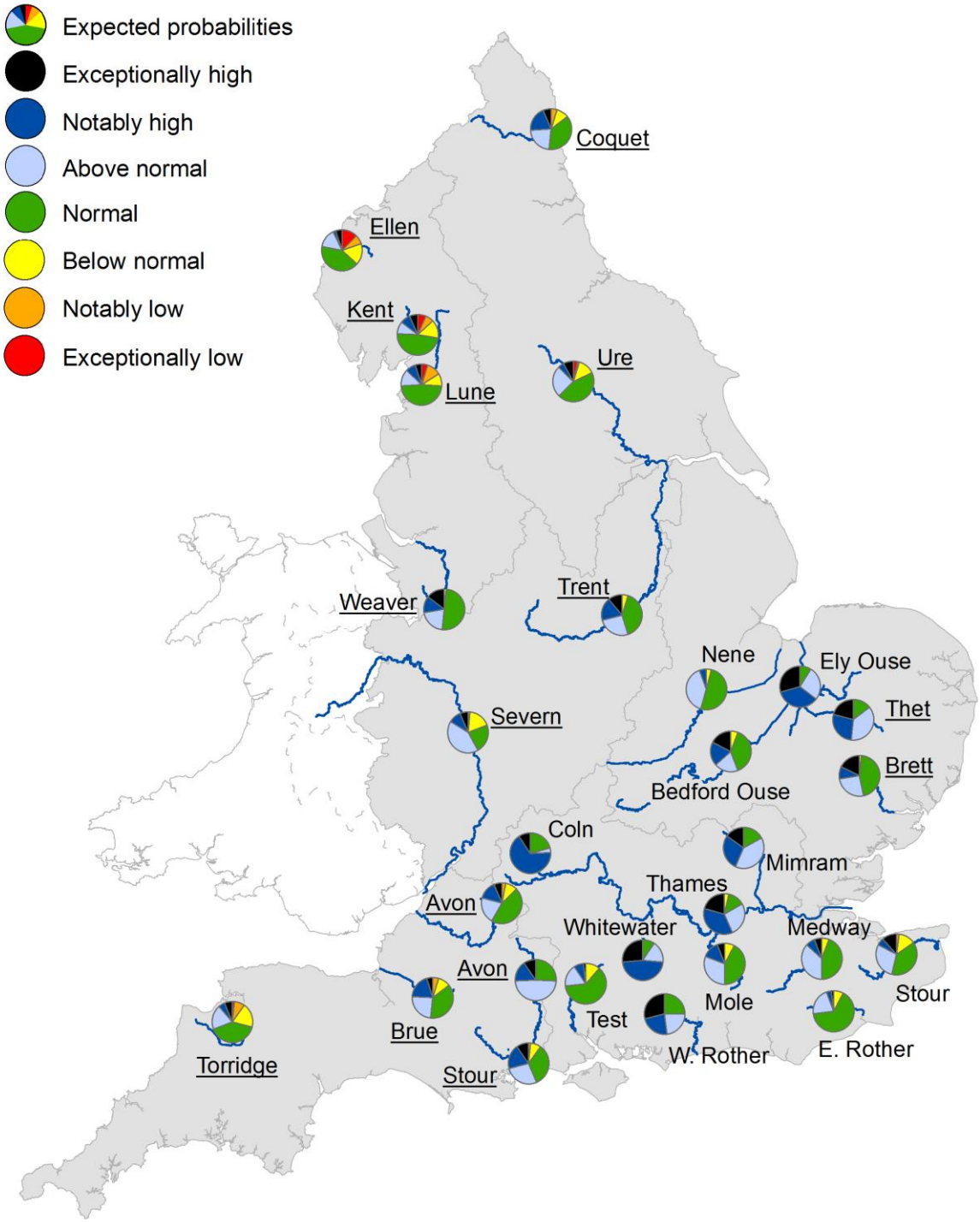
(Source: UK Centre for Ecology and Hydrology, Environment Agency).

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



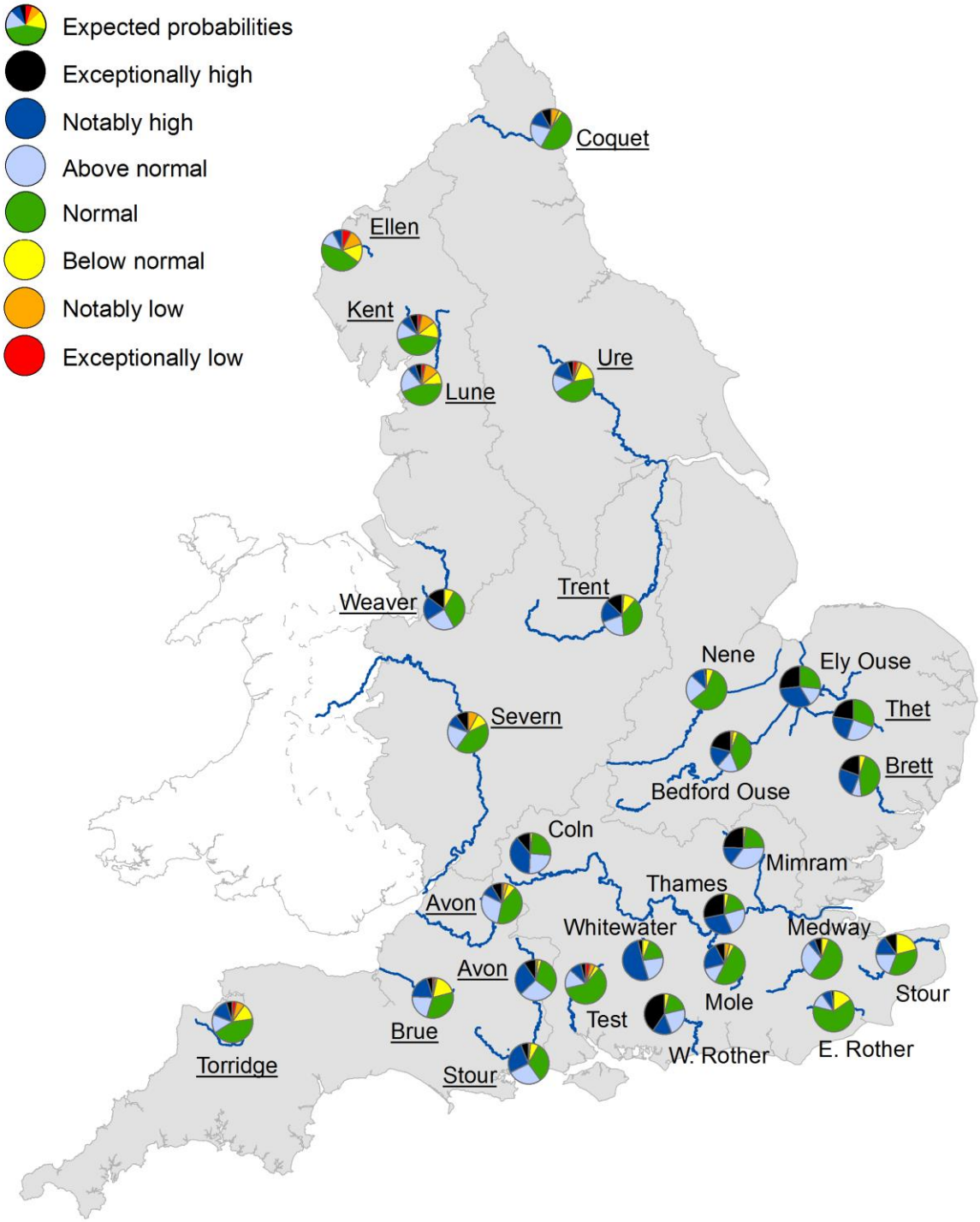
(Source: UK Centre for Ecology and Hydrology, Environment Agency)

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

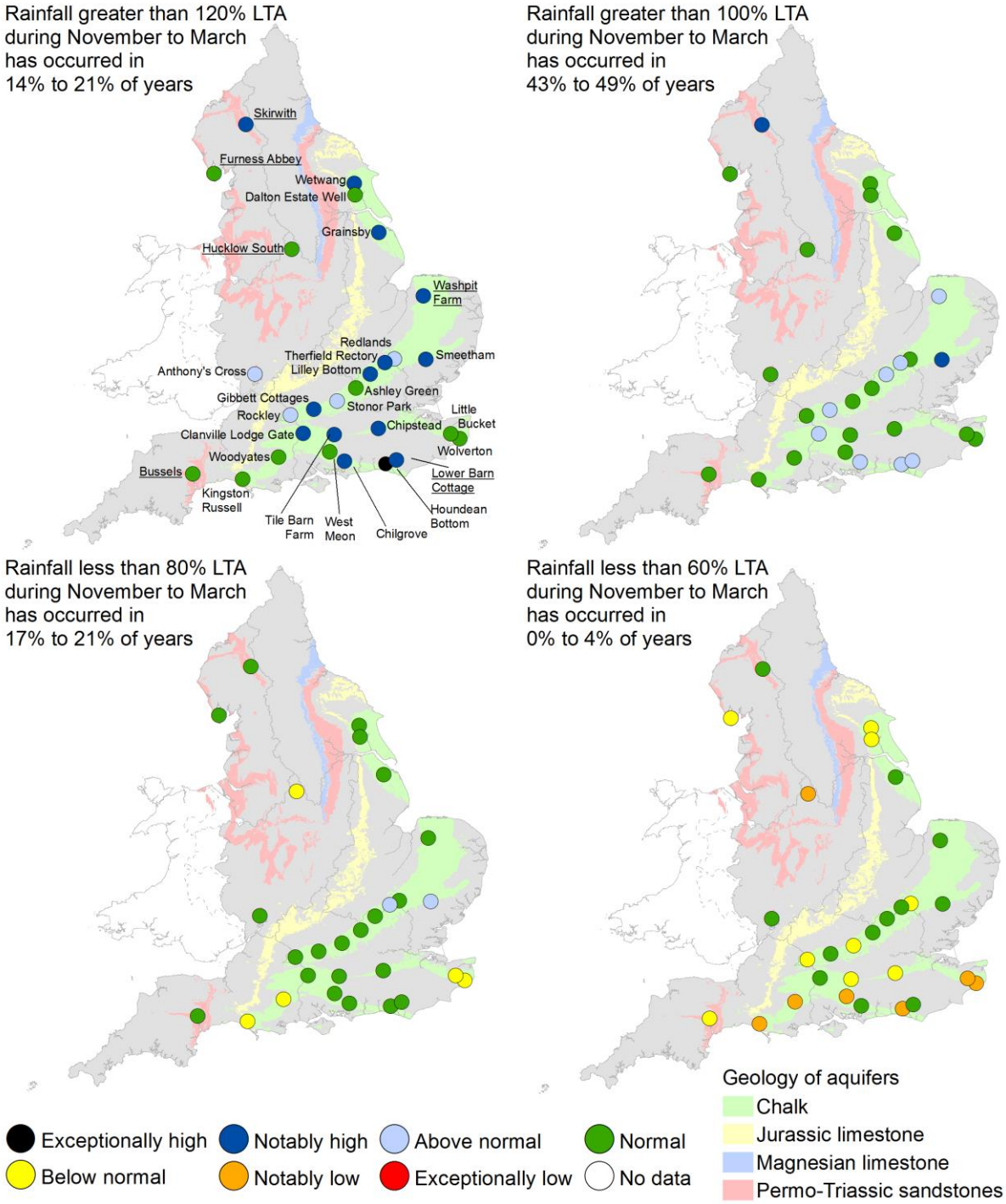


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Figure 7.6: Projected groundwater levels at key indicator sites at the end of September 2024. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall between November 2023 and September 2024. Rainfall statistics based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

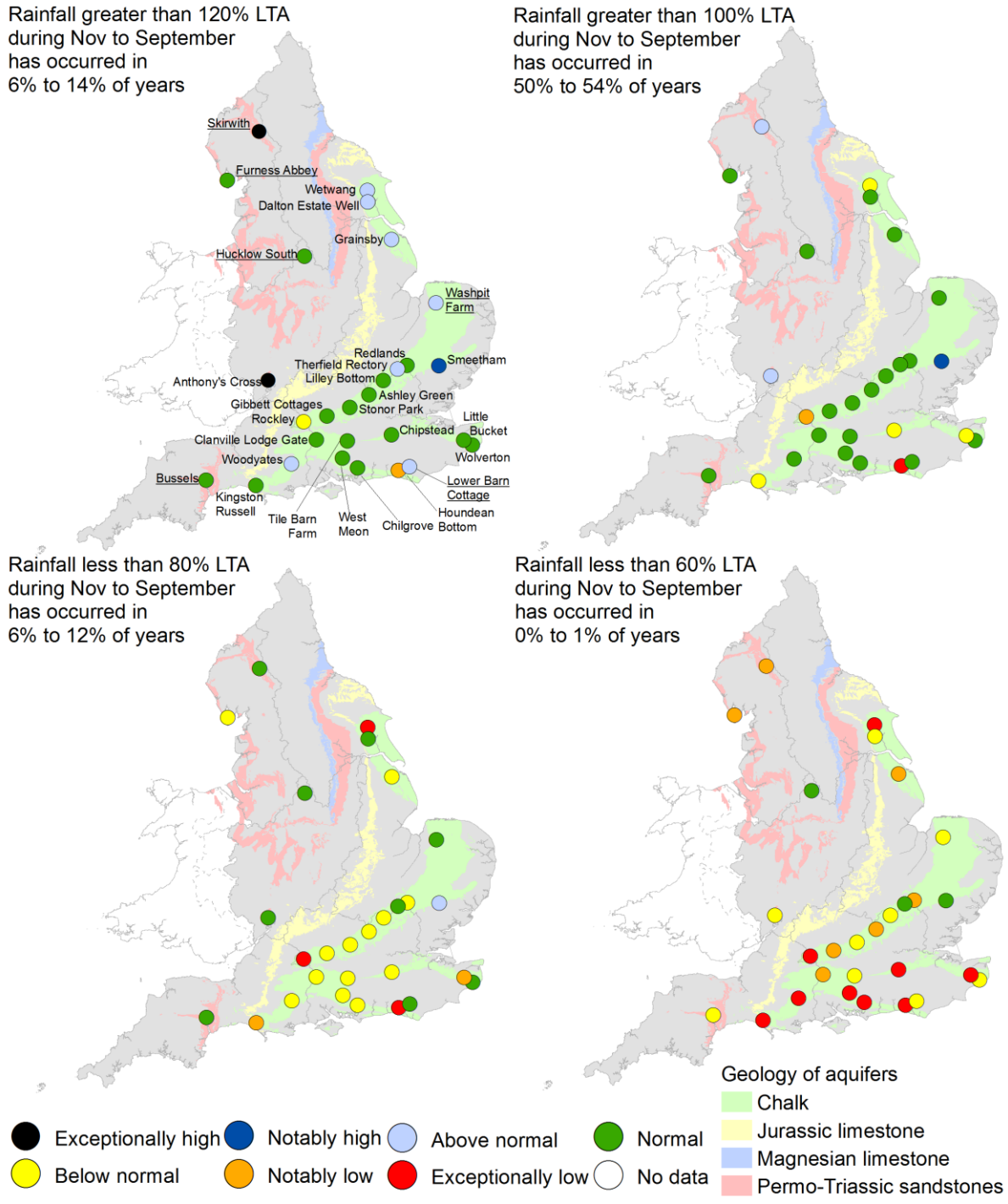

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Figure 7.7: Probabilistic ensemble projections of groundwater levels at key indicator sites at the end of March 2024. Pie charts indicate probability, based on climatology, of the groundwater level at each site being e.g. exceptionally low for the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

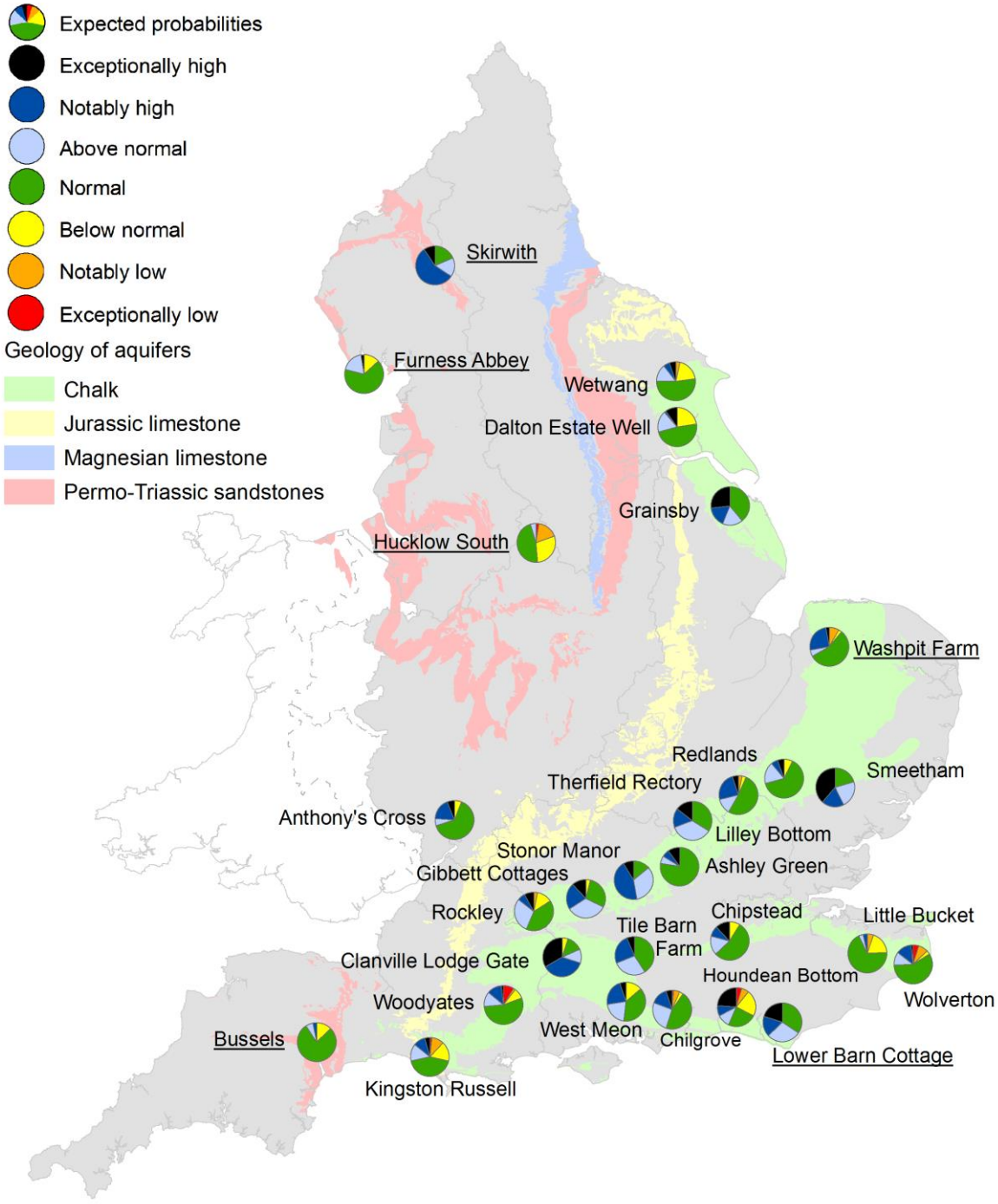

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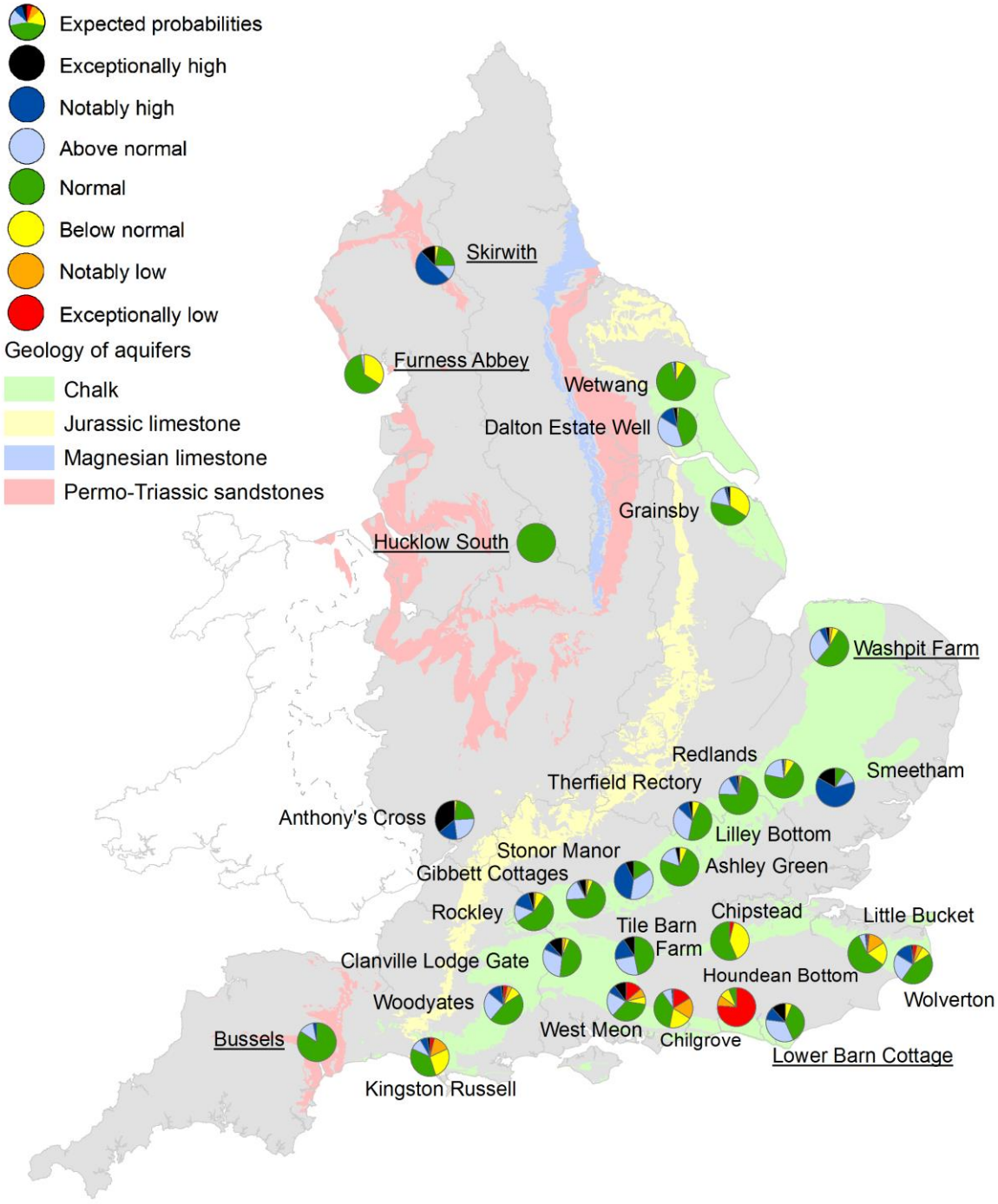
Figure 7.8: Probabilistic ensemble projections of groundwater levels at key indicator sites at the end of September 2024. Pie charts indicate probability, based on climatology, of the groundwater level at each site being e.g. exceptionally low for the time of year. Projections for underlined sites produced 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	Oct 2023 rainfall % of long term average 1961 to 1990	Oct 2023 band	Aug 2023 to October 2023 cumulative band	May 2023 to October 2023 cumulative band	Nov 2022 to October 2023 cumulative band
East England	251	Exceptionally High	Notably high	Above normal	Notably high
Central England	248	Exceptionally High	Notably high	Above normal	Notably high
North East England	212	Exceptionally High	Notably high	Notably high	Notably high
North West England	119	Normal	Above normal	Above normal	Notably high
South East England	210	Notably High	Above normal	Above normal	Exceptionally high
South West England	155	Above Normal	Above normal	Above normal	Exceptionally high
England	192	Exceptionally High	Notably high	Above normal	Exceptionally high

9.2 River flows table

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

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

South East	Hawley	Darent	Normal	Normal
South East	Horton	Great Stour	Normal	Normal
South East	Kingston	Thames	Above normal	Normal
South East	Lechlade	Leach	Notably high	Above normal
South East	Marlborough	Kennet	Exceptionally high	Above normal
South East	Princes Marsh	Rother	Above normal	Above normal
South East	Teston & Farleigh	Medway	Above normal	Normal
South East	Udiam	Rother	Above normal	Normal
South West	Amesbury	Upper Avon	Notably high	Above normal
South West	Austins Bridge	Dart	Normal	Above normal
South West	Bathford	Avon	Notably high	Normal
South West	Bishops Hull	Tone	Notably high	Notably high
South West	East Stoke	Frome	Above normal	Above normal
South West	Great Somerford	Avon	Notably high	Normal
South West	Gunnislake	Tamar	Normal	Normal
South West	Hammoon	Middle Stour	Notably high	Normal
South West	Knapp Mill	Avon		
South West	Lovington	Upper Brue	Notably high	Normal
South West	Thorverton	Exe	Above normal	Above normal

South West	Torrington	Torridge	Normal	Normal
South West	Truro	Kenwyn	Normal	Normal
EA Wales	Manley Hall	Dee	Notably high	Above normal
EA Wales	Redbrook	Wye	Above normal	Normal

9.3 Groundwater table

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

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

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

9.4 Reservoir table

Geographic region	% Full	Average comparison
East England	82	Above average
Central England	93	Above average
North-east England	91	Above average
North-west England	80	Above average
South-east England	86	Above average
South-west England	65	Below average
England	85	Above average