Monthly water situation report: England

1 Summary - June 2023

June was another dry month with almost all catchments across England receiving below average rainfall. Soil moisture deficits increased with soils drier than would be expected for the time of year. River flows remained normal at half of the reported sites, although flows decreased at all sites. By the end of June groundwater levels had decreased at three-quarters of reported indicator sites compared to the end of May. Almost all end of month groundwater levels were classed as normal or higher for the time of year. Reservoir stocks decreased but just over half of reported sites remain classed as normal or higher for the end of June.

1.1 Rainfall

The June rainfall total for England was 41mm which represents 67% of the 1961 to 1990 long term average (LTA) for the time of year (68% of the 1991 to 2020 LTA). With the exception of three catchments in central and north-west England, all catchments received below average rainfall during June. The wettest hydrological area relative to its LTA was the Douglas catchment in north-west England which received 114% of LTA rainfall. The driest hydrological area was the Avon Dart and Erme catchment in south-west England which received 36% of the LTA rainfall for the time of year. (Figure 2.1)

June rainfall totals were classed as normal for the time of year in over half of the catchments across England. Most of the remaining catchments were classed as below normal with just three classed as notably low and one classed as exceptionally low for the time of year. At the regional scale, south-east, central, north-west and north-east England all received normal rainfall during June. South-west and east England both received below normal rainfall for the time of year. June rainfall across England as a whole was normal for the time of year. (Figure 2.2).

The 3 month cumulative rainfall totals show a much drier situation than the position last month, particularly for the north of England. Nearly all catchments in central and southern England have 3 month rainfall totals classed as normal while in northern England nearly all catchments are classed as below normal. Both the Upper Dee and the Dee catchments near the Welsh border recorded 3 month totals that were in the top ten driest on record for the end of June (records go back to 1891). The 6 month cumulative rainfall totals show below normal totals in north-east England in contrast to above normal totals in southern England. Twelve month cumulative rainfall totals were normal for most catchments in England apart from the south coast where many catchments were above normal or higher. Four catchments in Sussex have 12 month totals that fall within the top ten wettest on record. (Figure 2.3)

1.2 Soil moisture deficit

Soil moisture deficits (SMD) had increased by the end of June following the below average rainfall and higher temperatures across the country. The rainfall in the middle of the month

allowed some respite for northern England. By the end of the month SMDs for central and southern England had increased beyond where they were before the mid-month rain. (Figure 3.1)

June SMD values across all of England were larger than average for the time of year, meaning soils were drier than would be expected. In parts of the south, south-west and west SMDs were more than 50 mm larger than average.

At a regional scale, the end of June SMDs were larger than average for the time of year. This was particularly so in parts of south-west England where soils were close to their historic maximum dryness for June and drier than this point in both 2018 and 2022. (Figure 3.2)

1.3 River flows

June monthly mean river flows decreased at all indicator sites we report on. Half of sites were normal for the time of year, while the remaining sites were fairly evenly split between higher than normal, below normal, notably low and exceptionally low. All the exceptionally low river flows were recorded in northern England. The River Swale at Crakehill Topcliffe was the lowest flow on record for the month (records go back to 1980) (Figure 4.1)

Monthly mean river flows reduced at all regional index sites during June. June monthly mean flows at Offord on the Bedford Ouse, Horton on the Great Stour, Kingston on the Thames and Thorverton on the Exe were classed as normal. These sites are in east, south-east, south-east and south-west England respectively. Flows on the River Dove in central England were below normal. The River Lune in north-west England was notably low. Flows on the South Tyne in north-east England were classed as exceptionally low for the time of year. (Figure 4.2)

1.4 Groundwater levels

By the end of June groundwater levels had decreased at three-quarters of reported indicator sites compared to the end of May. Almost all end of month groundwater levels were classed as normal or higher for the time of year. One site was below normal for the time of year. (Figure 5.1)

The major aquifer index sites reflected a varied picture at the end of June, ranging from normal to exceptionally high levels. Normal groundwater levels for the time of year were reported at Dalton Estate Well in the Hull and East Riding Chalk, at Skirwith in the Carlisle Basin and Eden Valley Sandstone, at Jackaments Bottom in the Burford Jurassic Limestone, at Stonor Park in the South West Chilterns Chalk and at Weir Farm in the Bridgnorth Sandstone. Little Bucket in the East Kent Stour Chalk and Redlands Hall in the Cam and Ely Ouse Chalk were both above normal for the time of year. Chilgrove in the Chichester Chalk remains exceptionally high at the end of June after groundwater levels increased rapidly in spring. (Figure 5.2)

1.5 Reservoir storage

Reservoir storage during June either decreased or remained similar throughout the country. The largest storage changes occurred at the Elan Valley reservoirs (near the Welsh border but supplying central England) as well as the Haweswater and Thirlmere Group (north-west England) with storage at both locations reducing by 17%. The Lower Thames Group (south-east England) was the only location to show an increase, with volumes rising by 1%. The decrease in storage throughout the month resulted in nearly half of reported reservoirs being classed as lower than normal for the time of year. Only three locations: the Lower Thames Group, Chew Valley and Stithians located in the south-east and south-west England continue to maintain above normal storage volumes. (Figure 6.1)

At a regional scale, total reservoir storage reduced during June, with regional storage ranging from 76% in south-west England to 93% in south-east England. By the end of June the total storage for England was at 81%. (Figure 6.2)

1.6 Forward look

The mid-July period is likely to experience unsettled conditions, with scattered showers throughout England. At times rainfall may be heavy with thunderstorms but interspersed with some clear and sunny spells. Rainfall for England is projected to be slightly above average during this period with temperatures expected to be close to normal for the time of year. The final weeks of July are likely to be drier and warmer than the first weeks, with forecasts of average to below average rainfall, alongside an increase in temperature.

For the 3 month period from July to September there is an increased chance of England experiencing heatwaves. However, near average temperatures and rainfall remain the most likely outcomes, punctuated by localised thundery downpours.

1.7 Projections for river flows at key sites

From now until the end of September 2023, rivers throughout England have a greater likelihood than might be expected of experiencing normal flows, with some increased likelihood of below normal flows observed in the east and west of the country. A similar trend can be observed in the projection through to March 2024; where 90% of rivers are more likely to maintain normal flows, with the remaining 10% experiencing an increased chance of below normal flows.

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

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

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

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

1.8 Projections for groundwater levels in key aquifers

By the end of September 2023 groundwater in the south of England has a greater likelihood than might be expected of levels classed as normal to above normal, with levels in Sussex more likely to be classed as exceptionally high. The remainder of England will likely experience normal groundwater levels with the exception of the Midlands, where above normal levels are more likely, and both Yorkshire and East Anglia where below normal levels are likely. By the end of March 2024, it is likely that groundwater levels throughout the country will remain at either normal or above normal, with the highest levels observed in south-east England and on the southern coast.

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

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

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

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

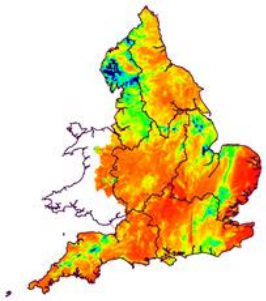
Author: National Water Resources Hydrology Team, Nationalhydrology@environment-agency.gov.uk

2 Rainfall

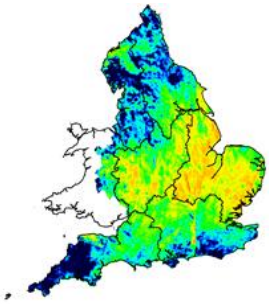
2.1 Rainfall map

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.

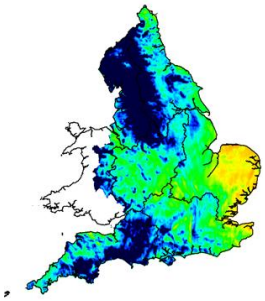
August 2022



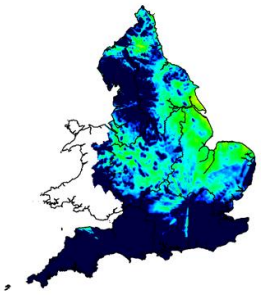
September 2022



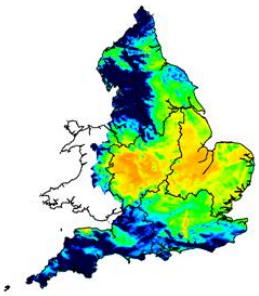
October 2022



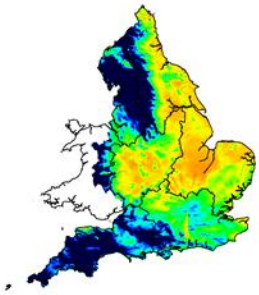
November 2022



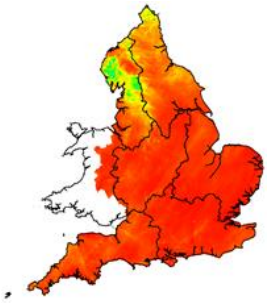
December 2022



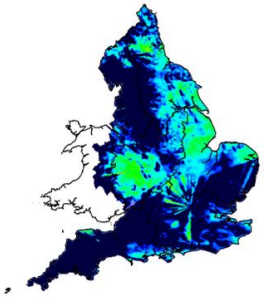
January 2023



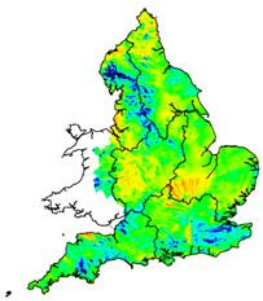
February 2023



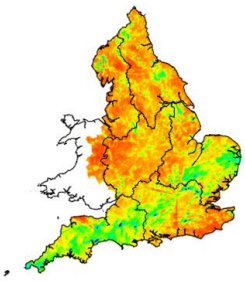
March 2023



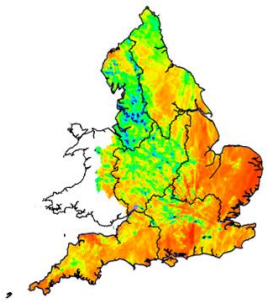
April 2023



May 2023



June 2023



Map Legend

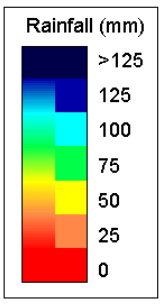
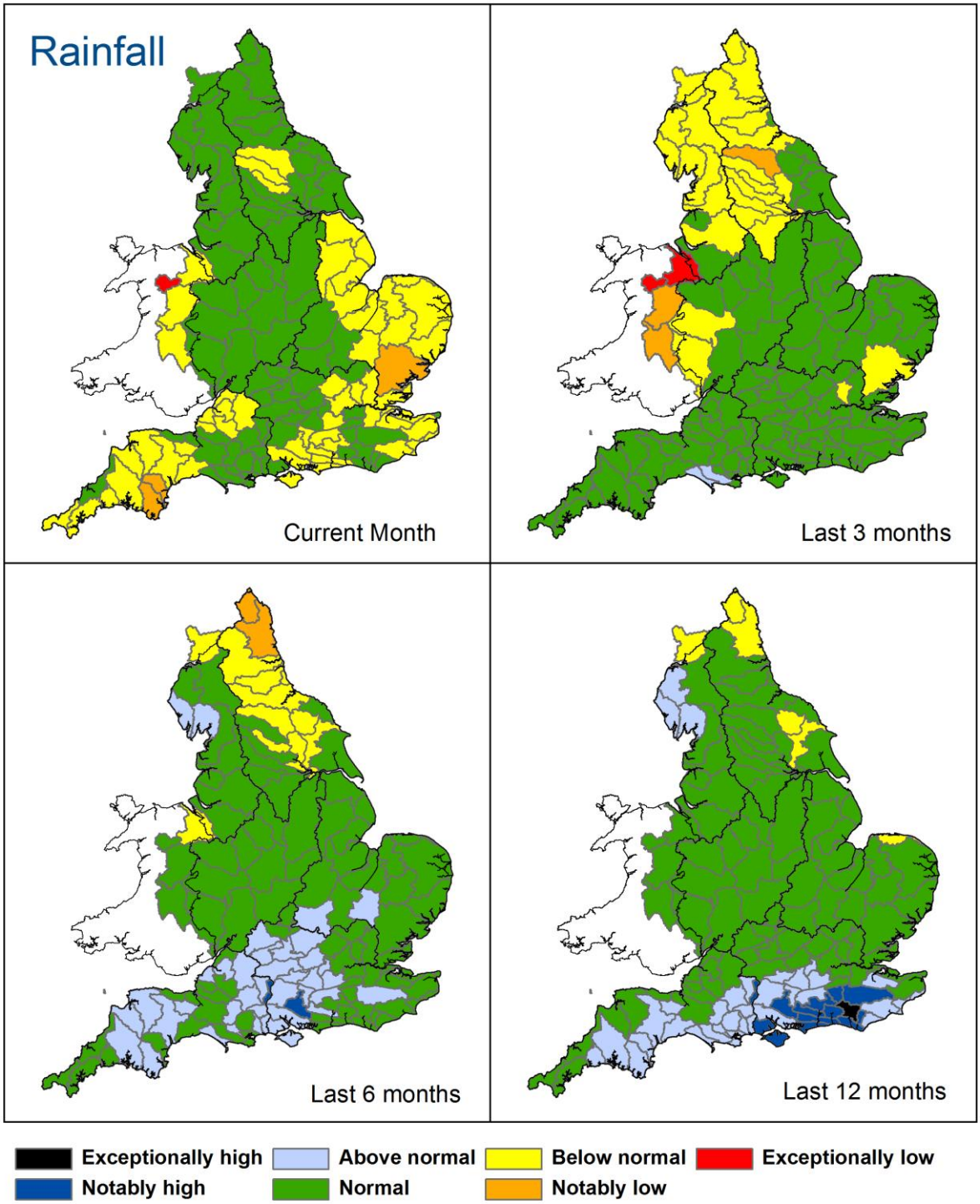


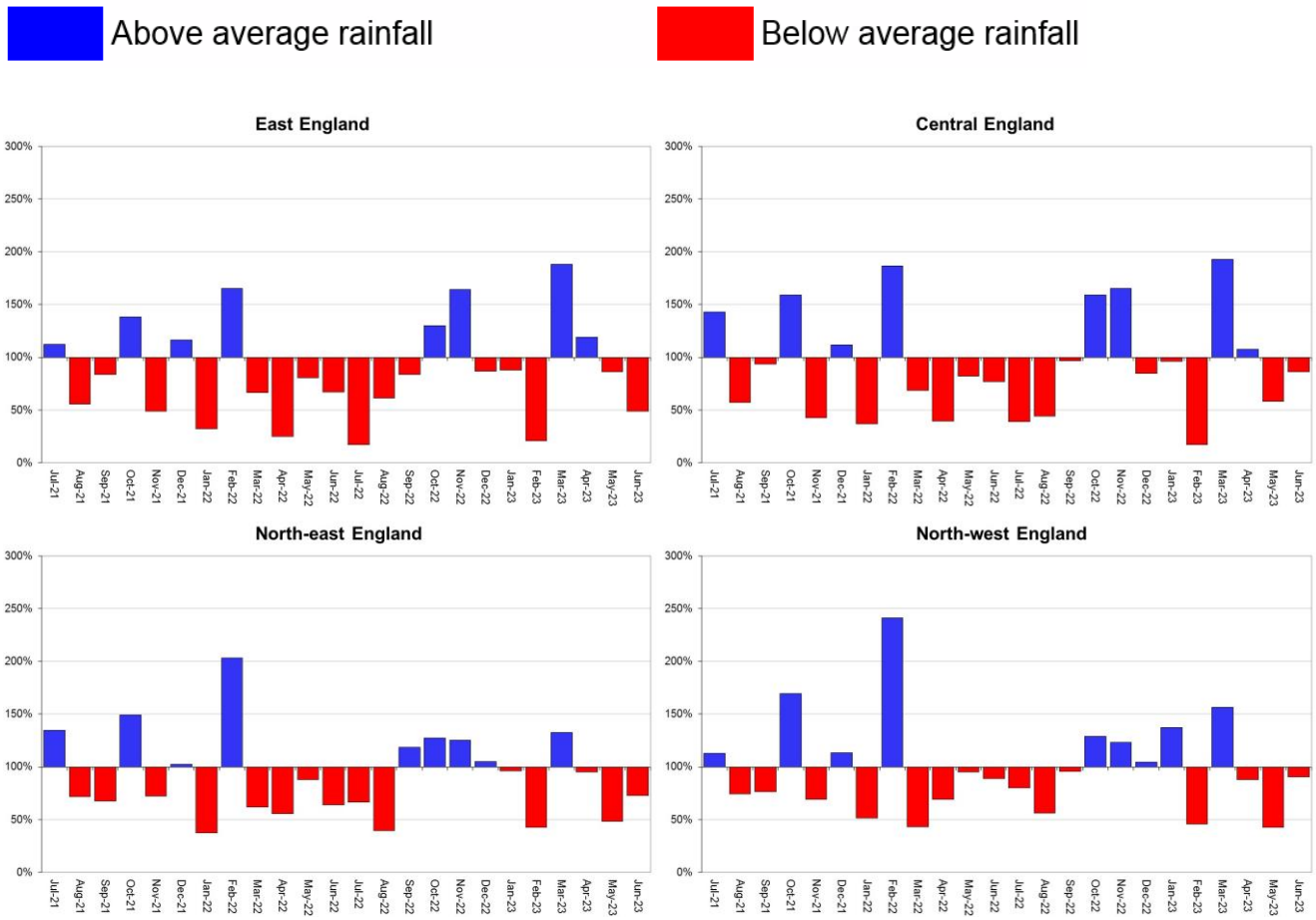
Figure 2.2: Total rainfall for hydrological areas across England for the current month (up to 30 June 2023), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals.

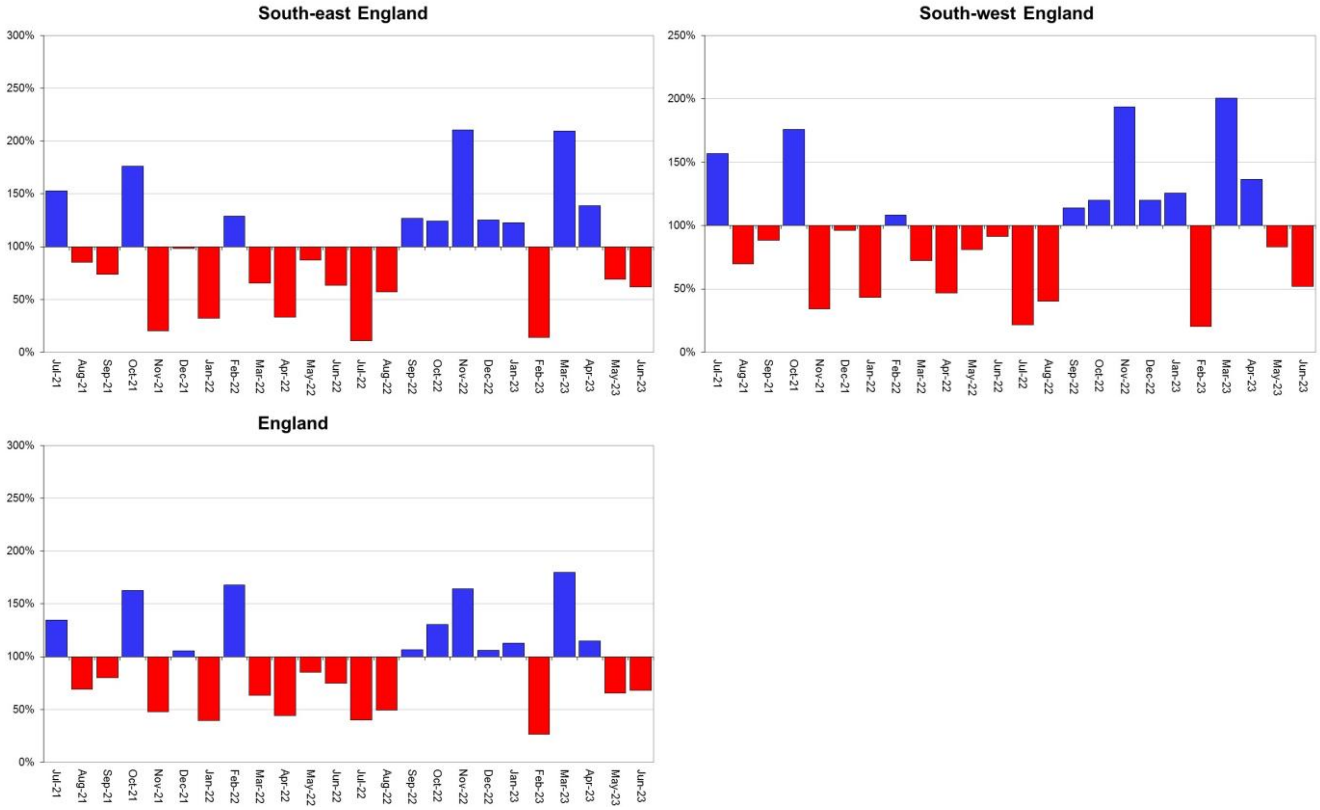


HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges (Source: Met Office. Crown copyright, 2023). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. Crown copyright. All rights reserved.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

2.2 Rainfall charts

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





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

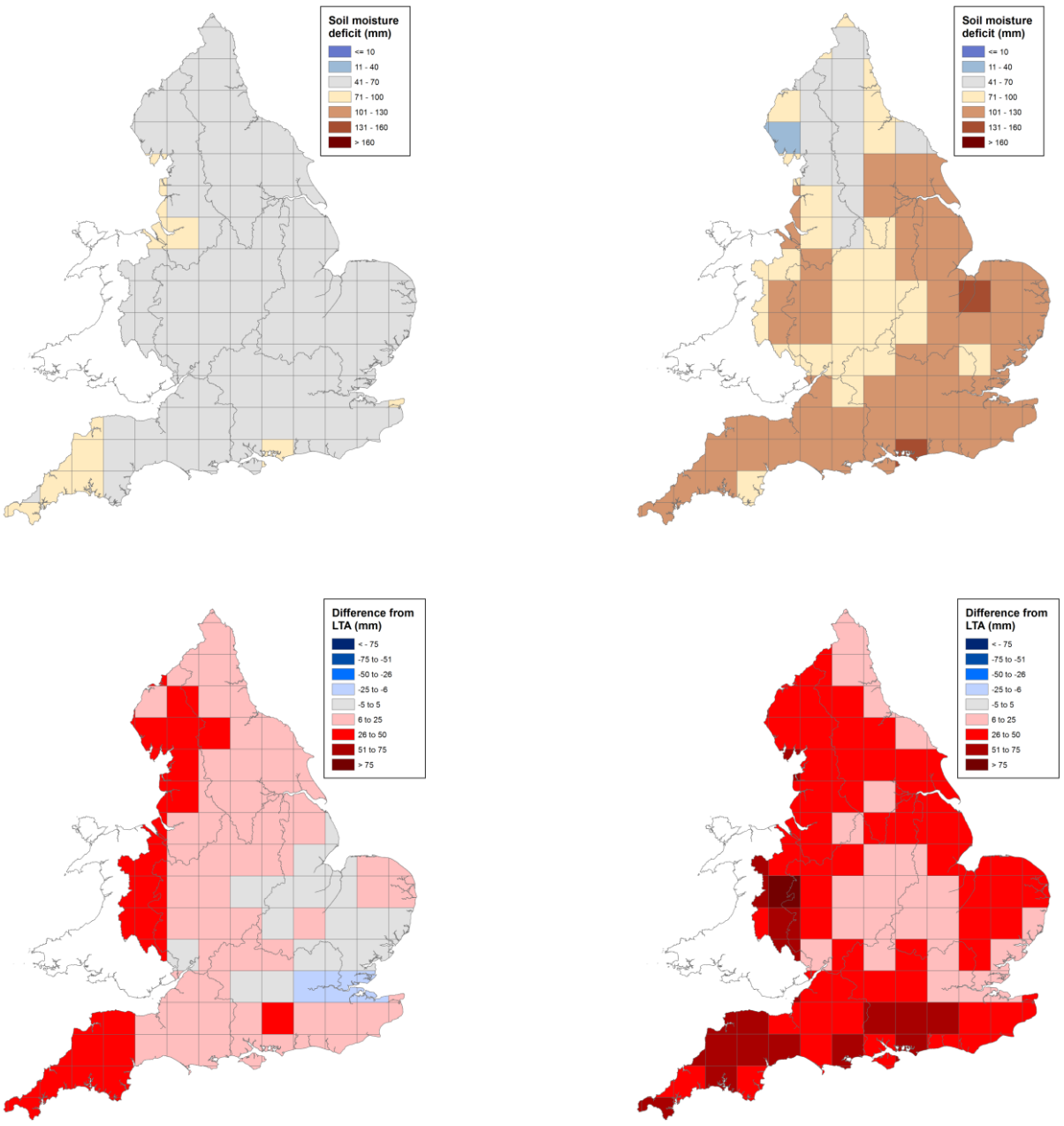
3 Soil moisture deficit

3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for weeks ending, 31 May 2023 (left panel) and 28 June 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.

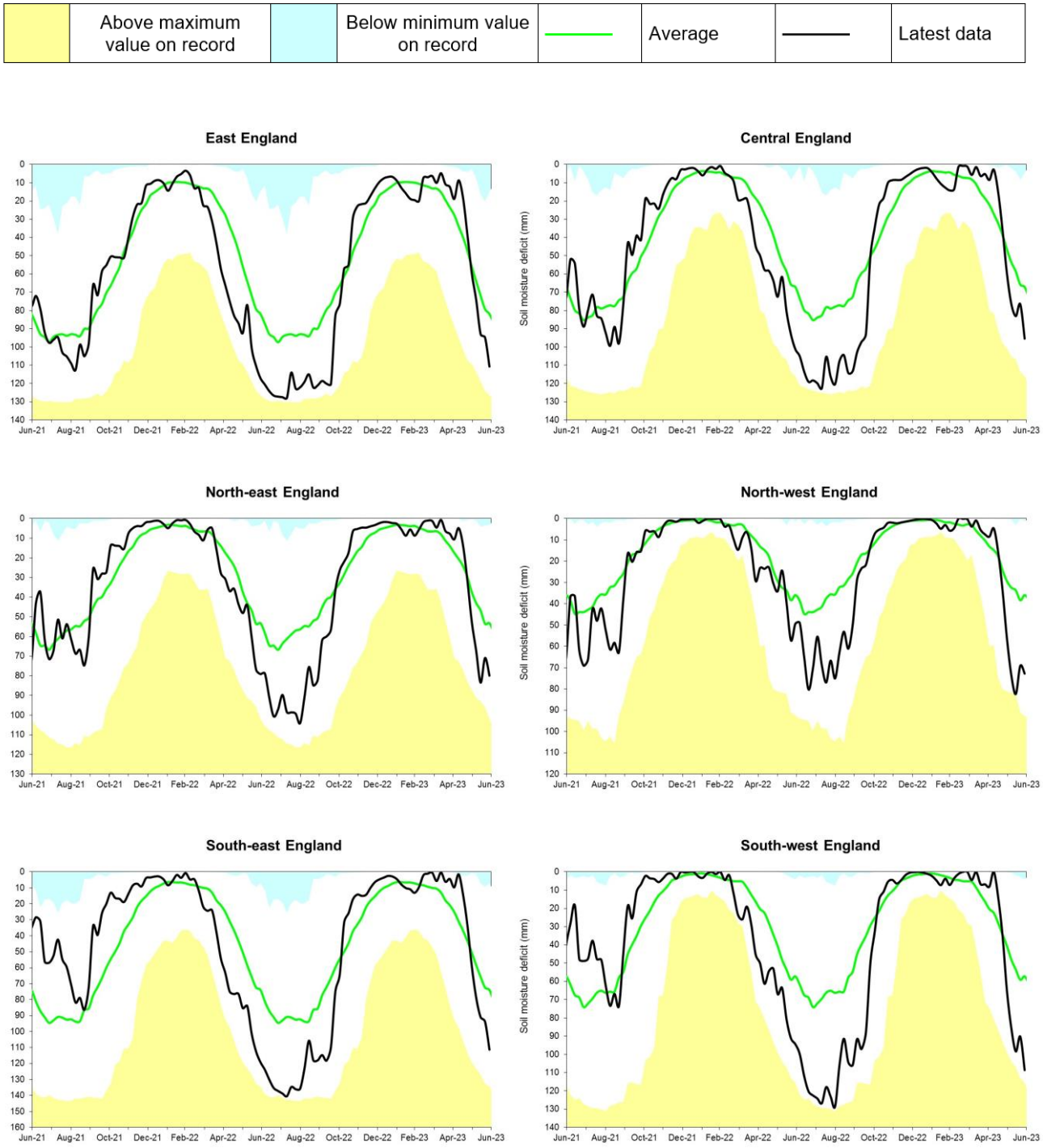
End of May 2023

End of June 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.



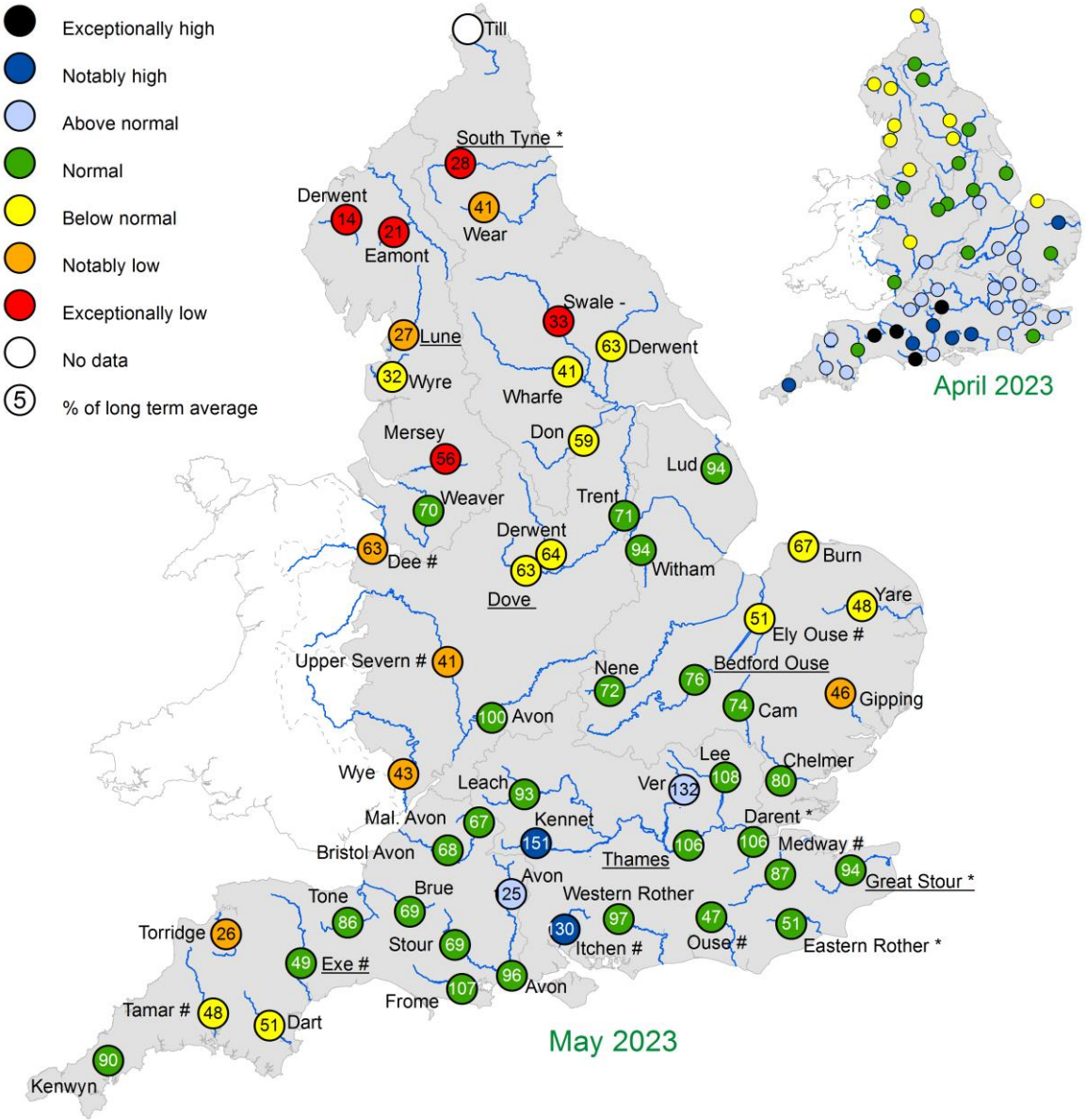
(Source: Met Office. Crown copyright, 2023).

4 River flows

4.1 River flow map

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

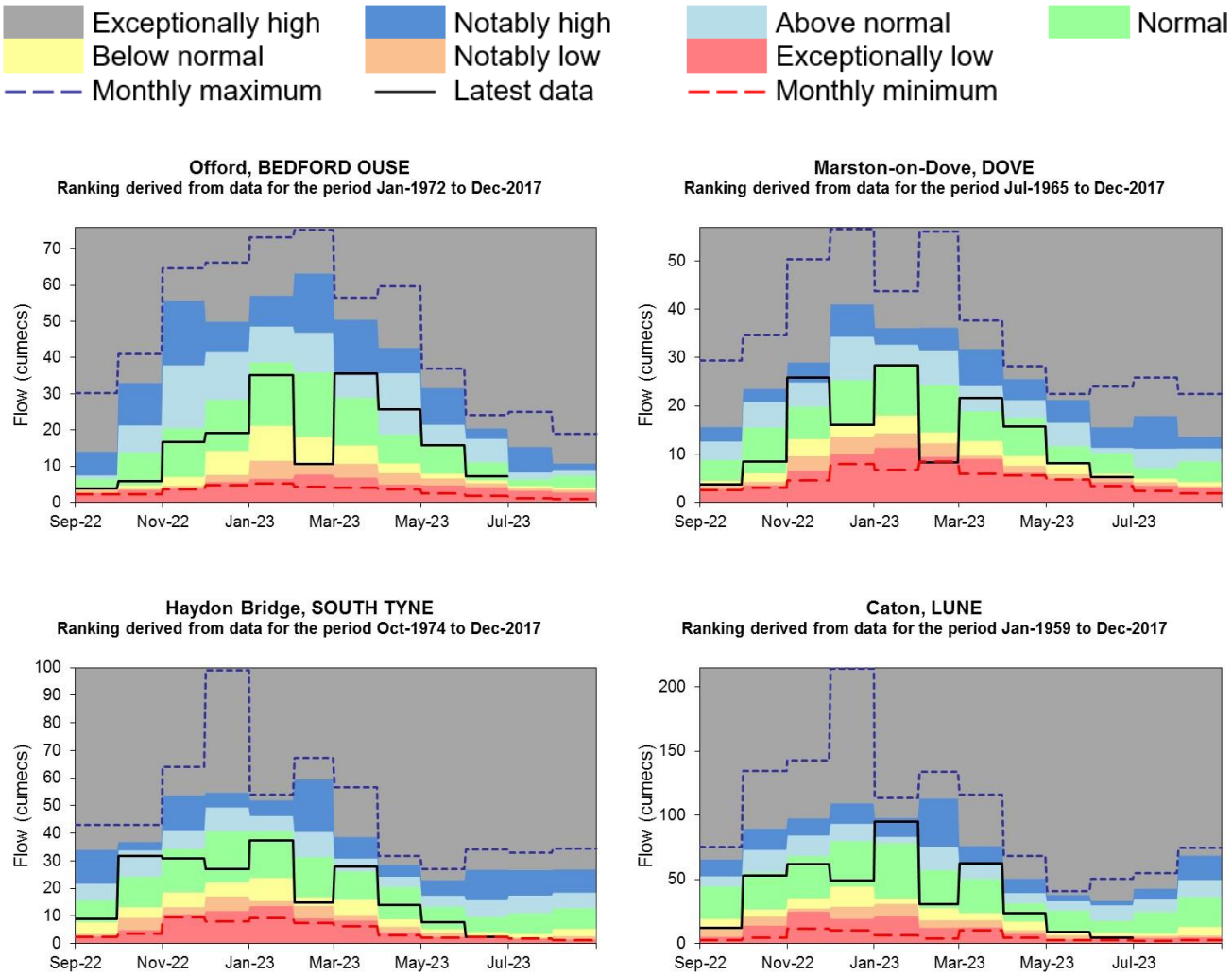
Naturalised flows are provided for the River Thames and the River Lee. +/- Monthly mean flow is the highest/lowest on record for the current month (note that record length varies between sites). * Flows may be overestimated at these sites – data should be treated with caution. # Flows may be impacted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

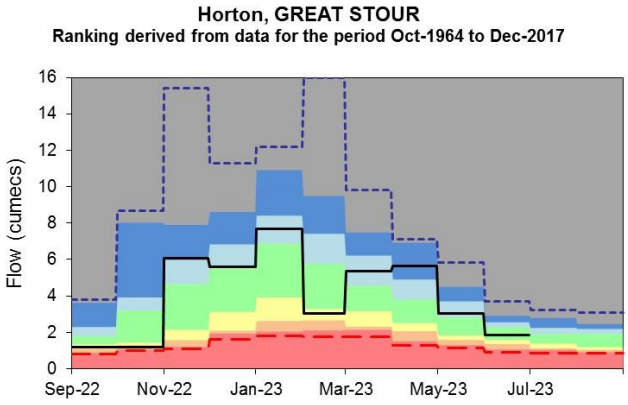


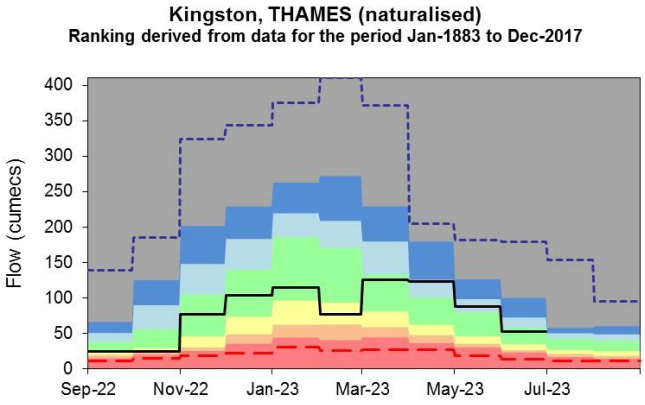
(Source: Environment Agency). Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

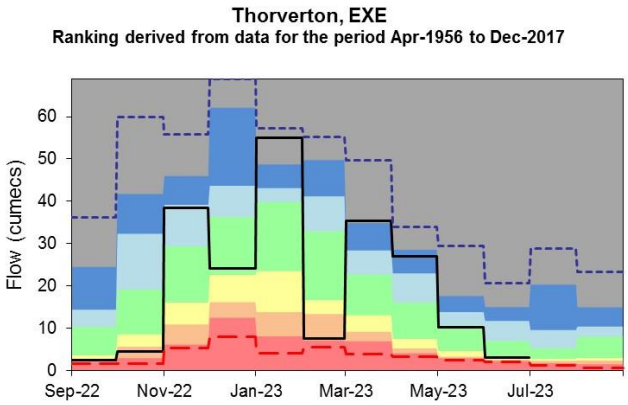
4.2 River flow charts

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.









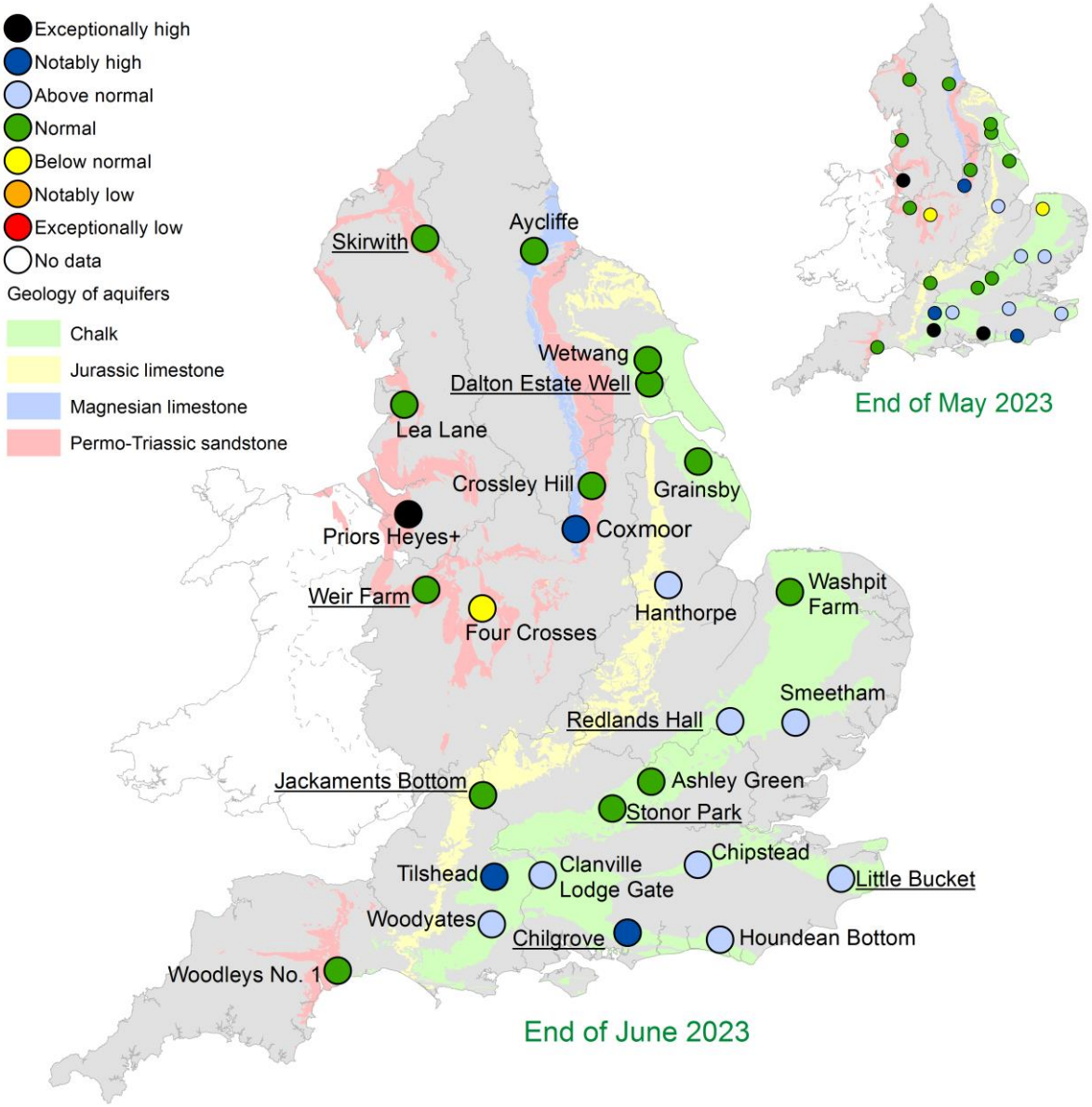
(Source: Environment Agency).

5 Groundwater levels

5.1 Groundwater levels map

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

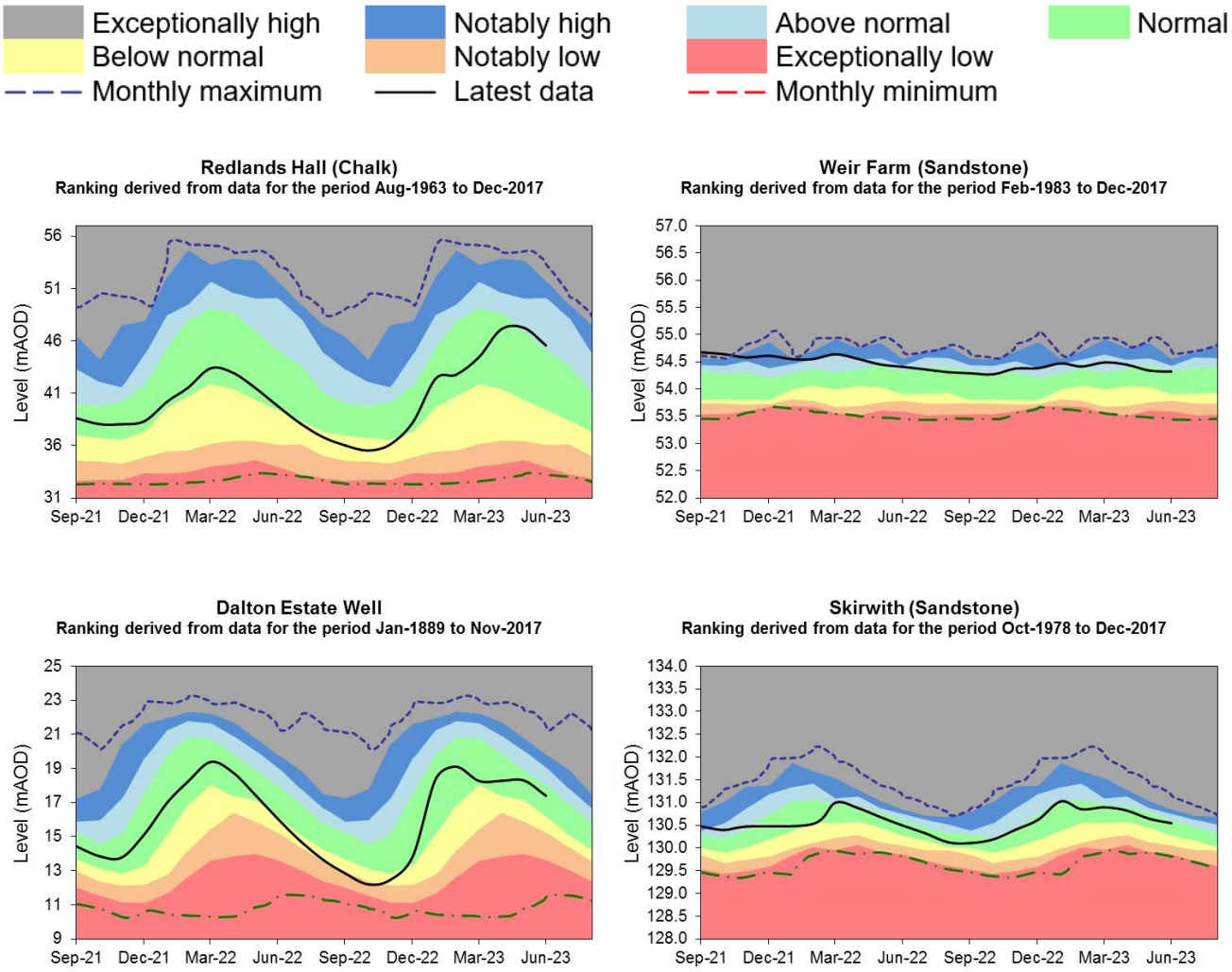
Redlands Hall and Aycliffe are manually dipped at different times during the month and so may not be fully representative of month end levels. Levels at Priors Heyes remain high compared to historic levels because the aquifer is recovering from the effects of historic abstraction. +/- End of month groundwater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

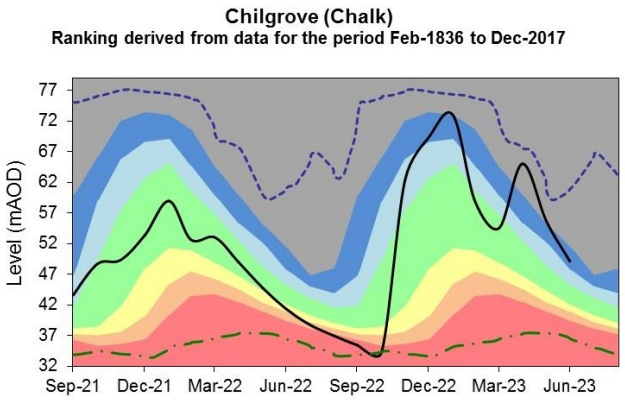


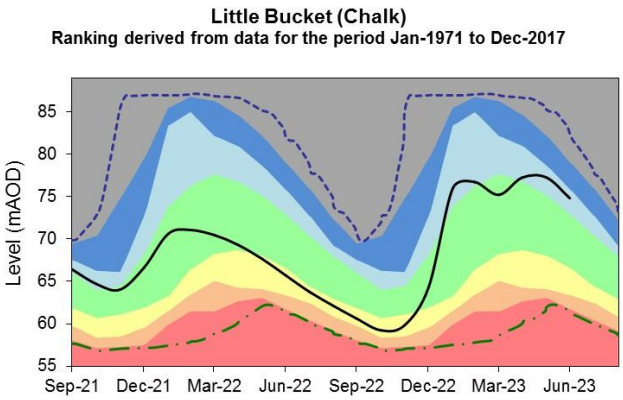
(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, 100024198, 2023.

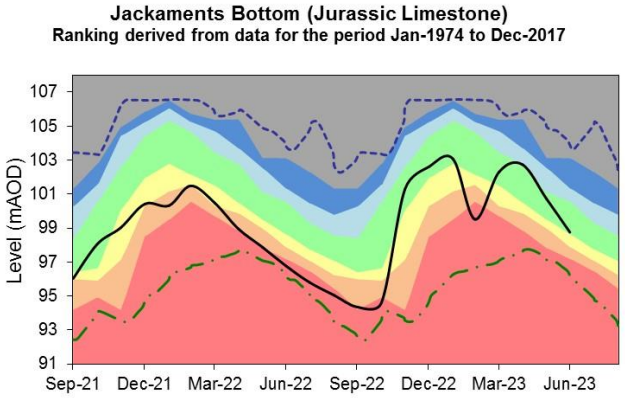
5.2 Groundwater level charts

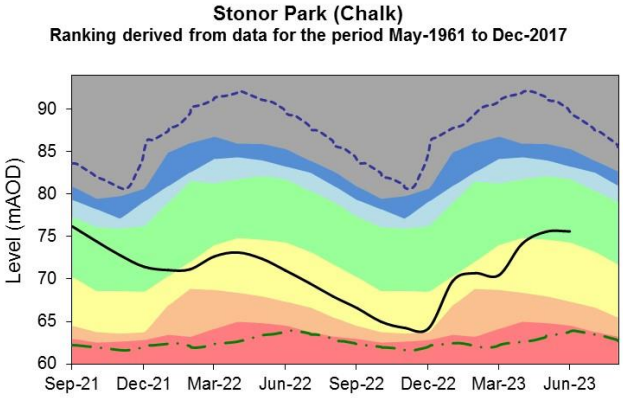
Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. Past 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.









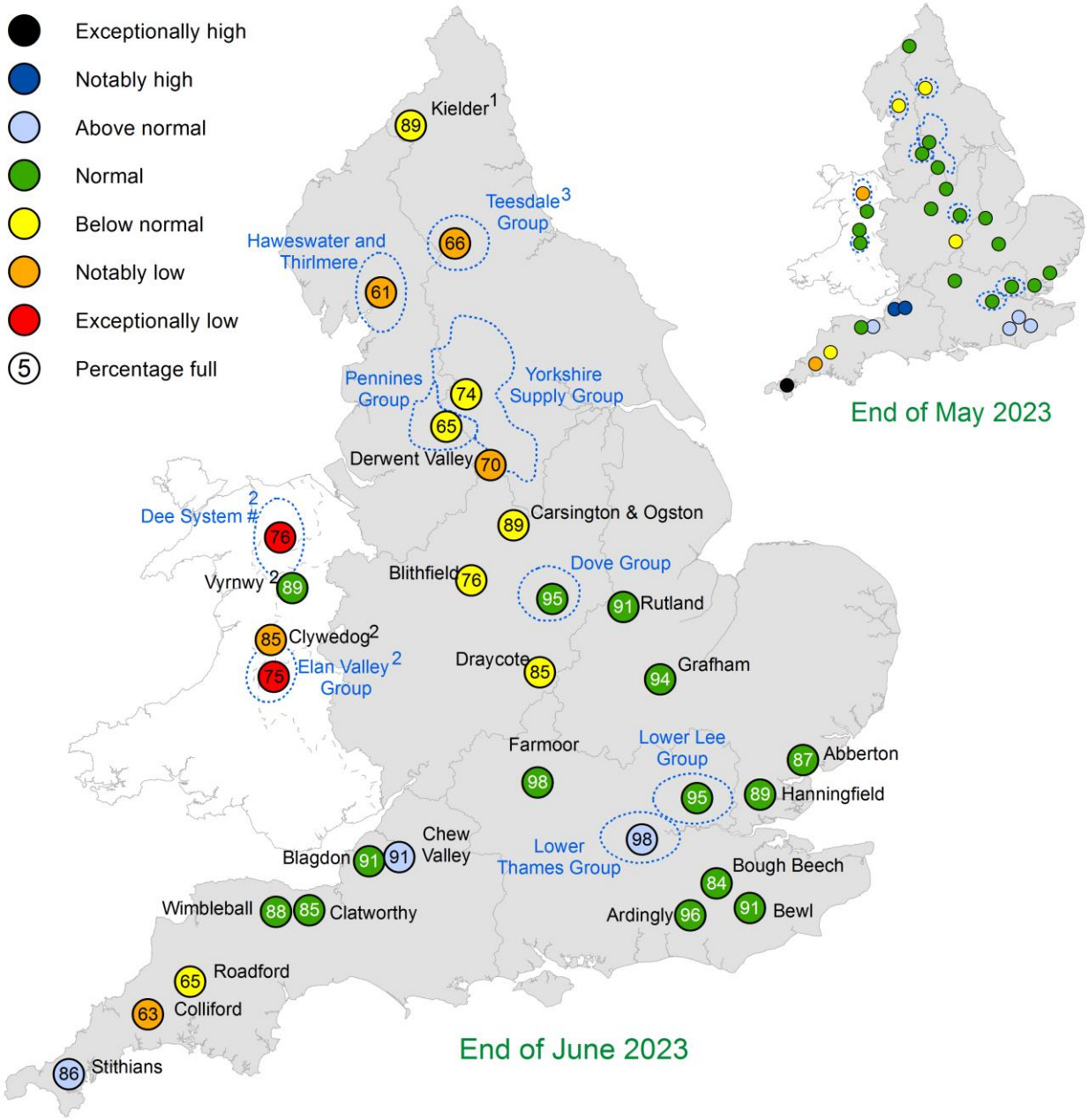


(Source: Environment Agency, 2023)

6 Reservoir storage

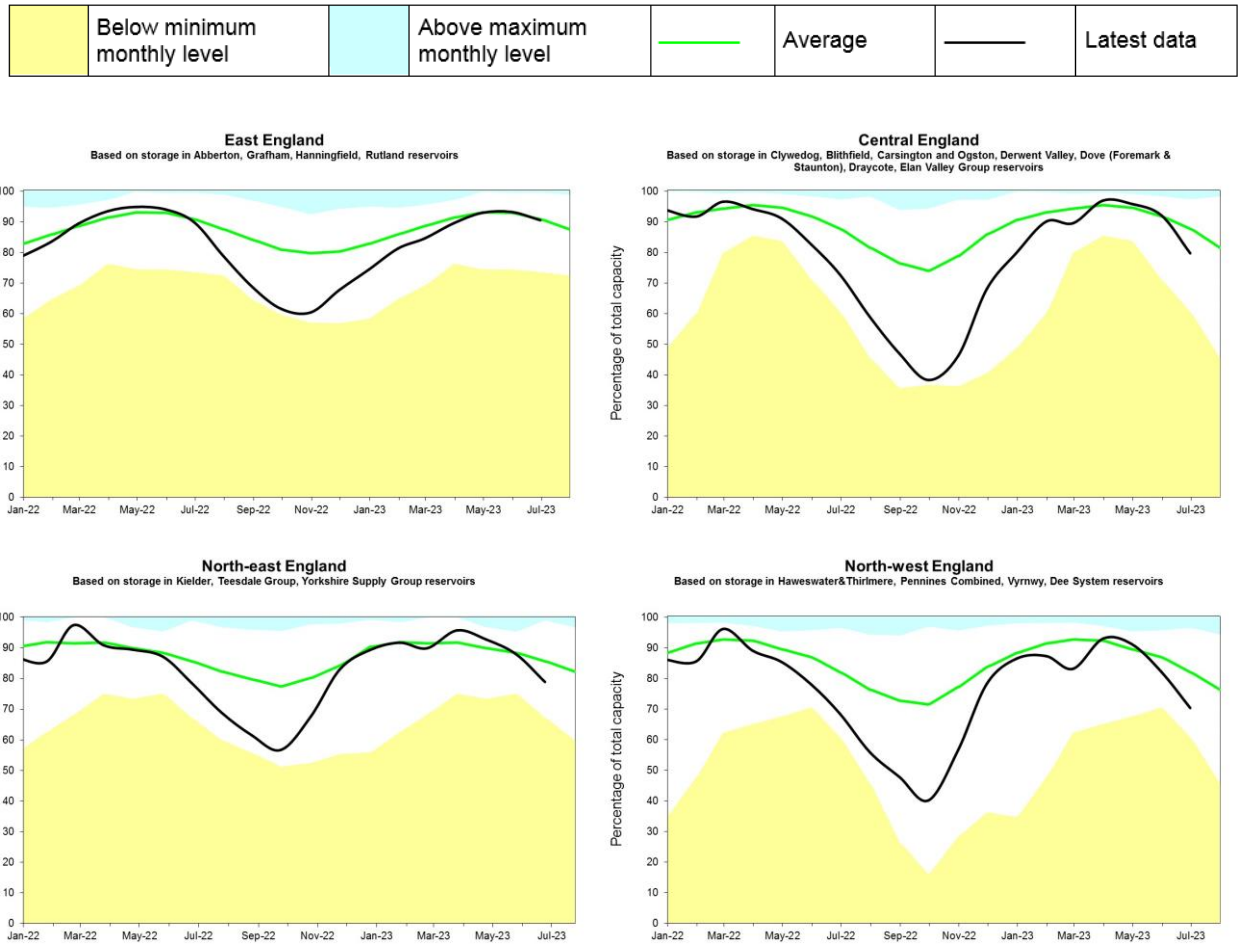
6.1 Reservoir storage map

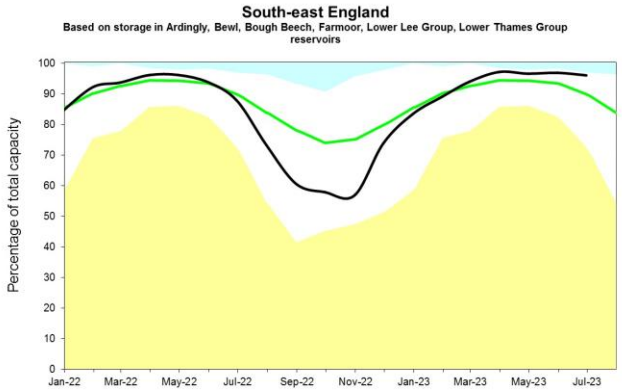
Figure 6.1: Reservoir stocks at key individual and groups of reservoirs at the end of May 2023 and June 2023 as a percentage of total capacity and classed relative to an analysis of historic May and June values respectively. Note: Classes shown may not necessarily relate to control curves or triggers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

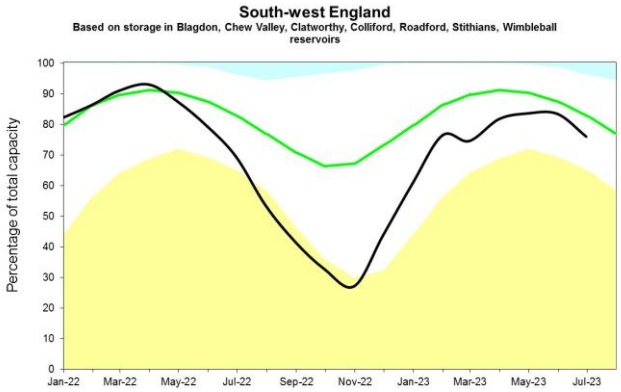


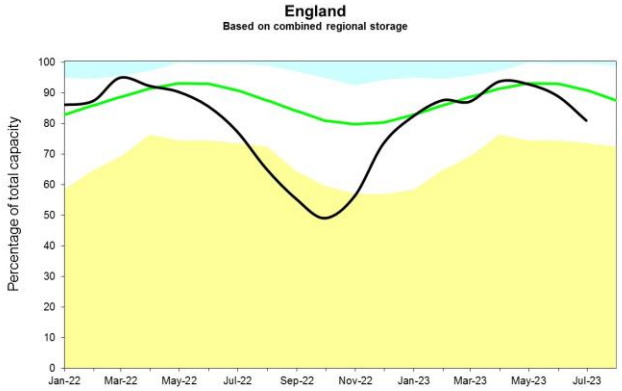
6.2 Reservoir storage charts

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.







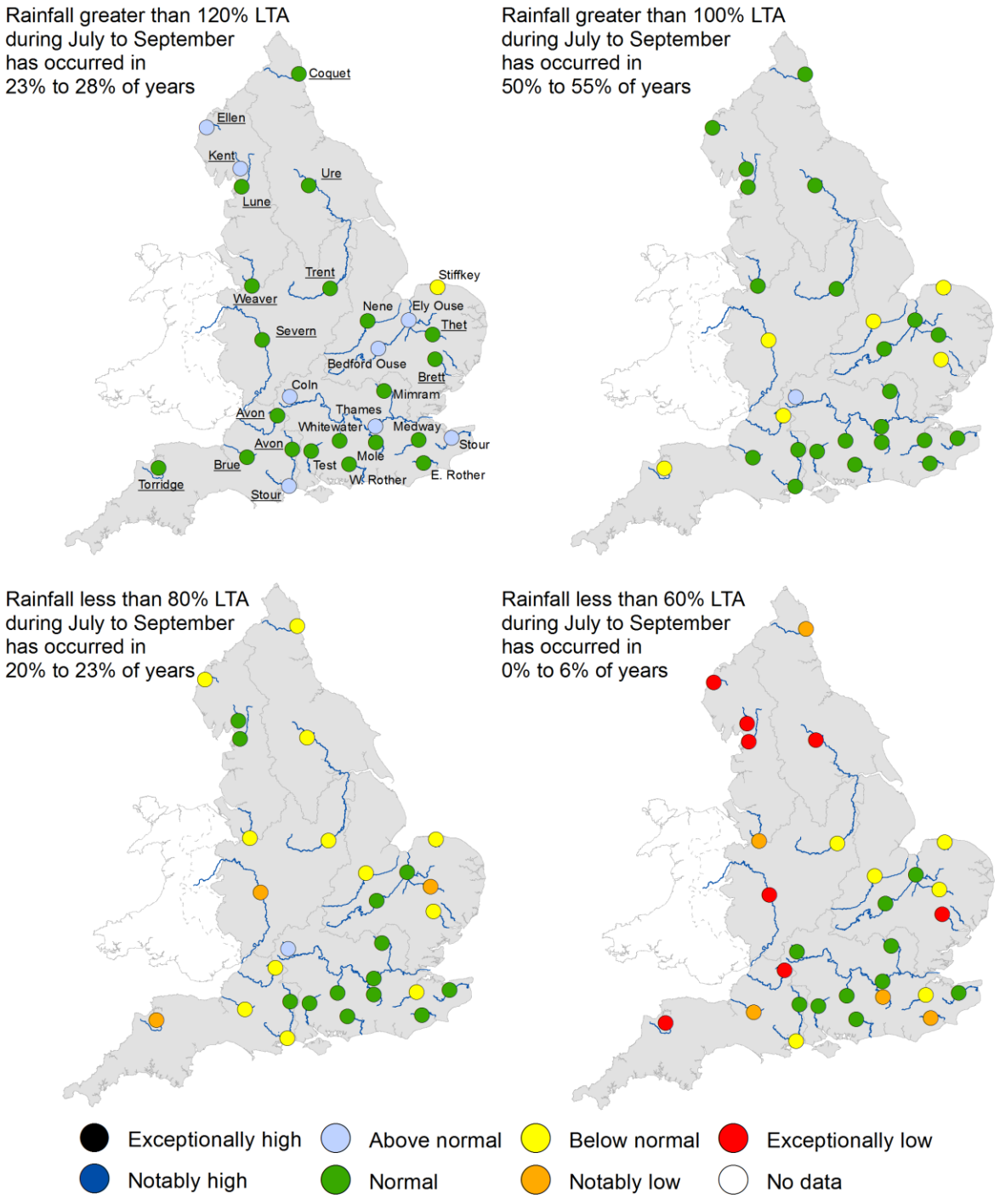


(Source: Water Companies).

7 Forward look

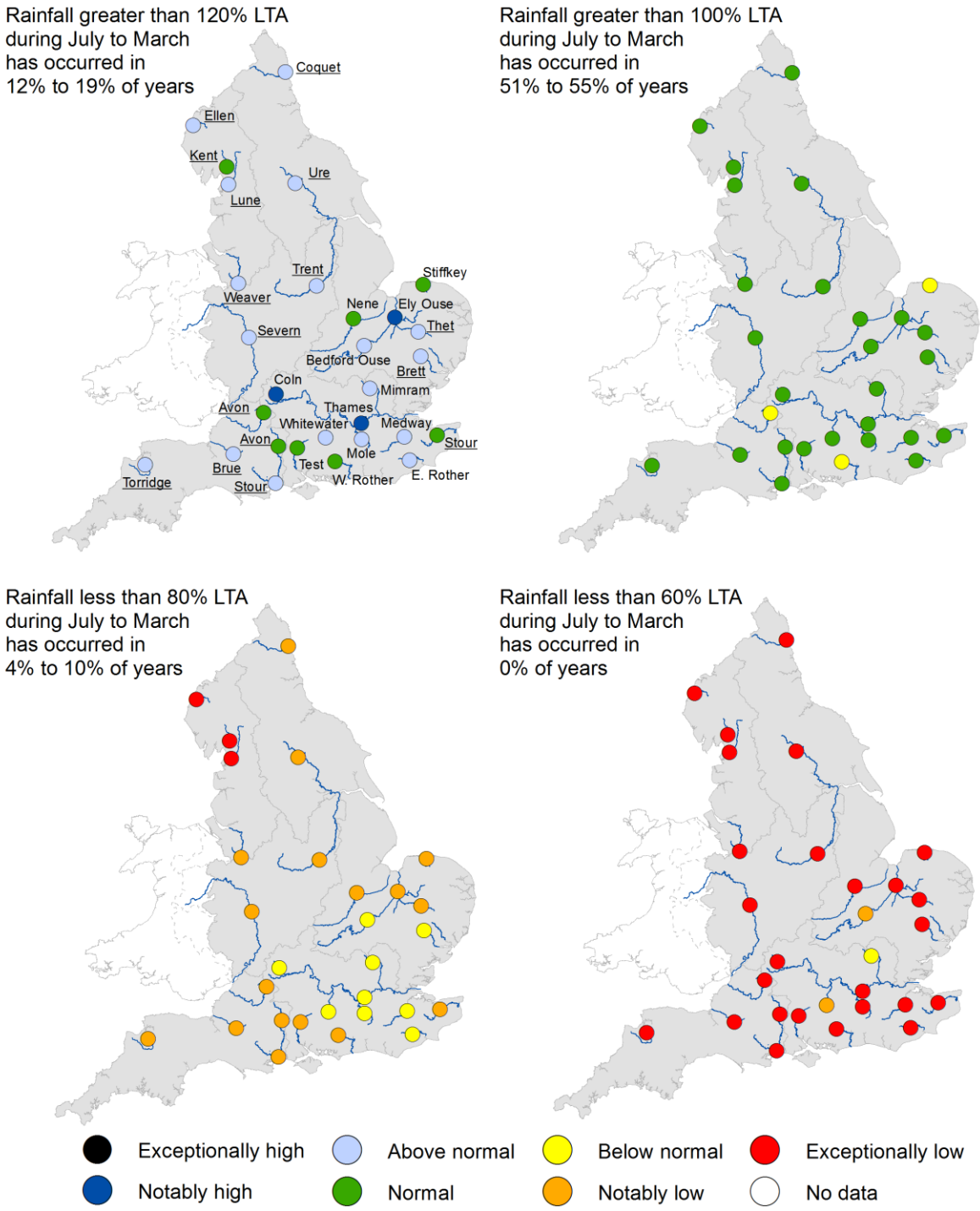
7.1 River flow

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



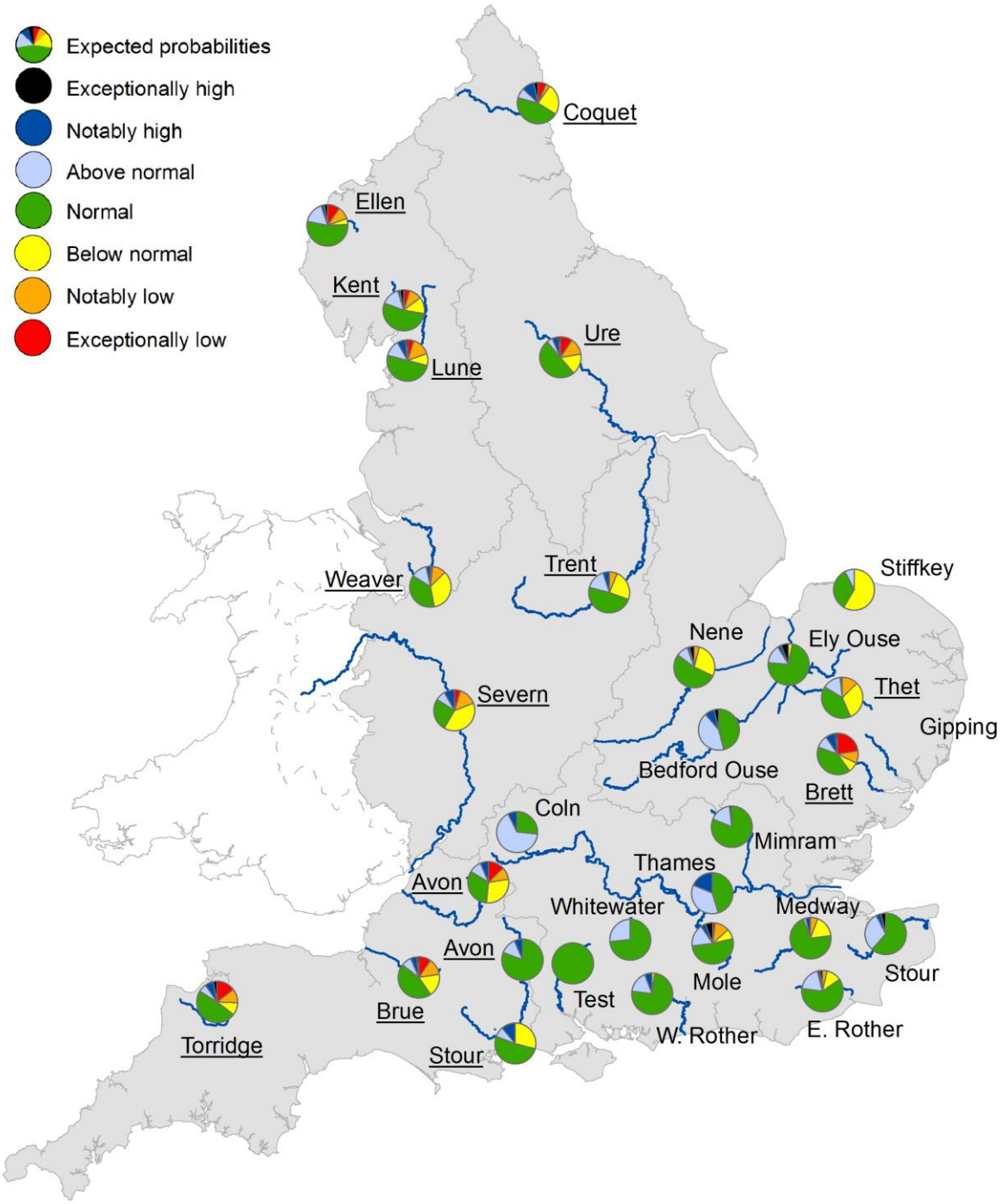
(Source: UK Centre for Ecology and Hydrology, Environment Agency).

Figure 7.2: Projected river flows at key indicator sites up until the end of March 2024. Projections based on four scenarios: 120%, 100%, 80% and 60% of long term average rainfall between July 2023 and March 2024. Rainfall statistics based on occurrence in the historic record since 1891. Projections for underlined sites produced by CEH.



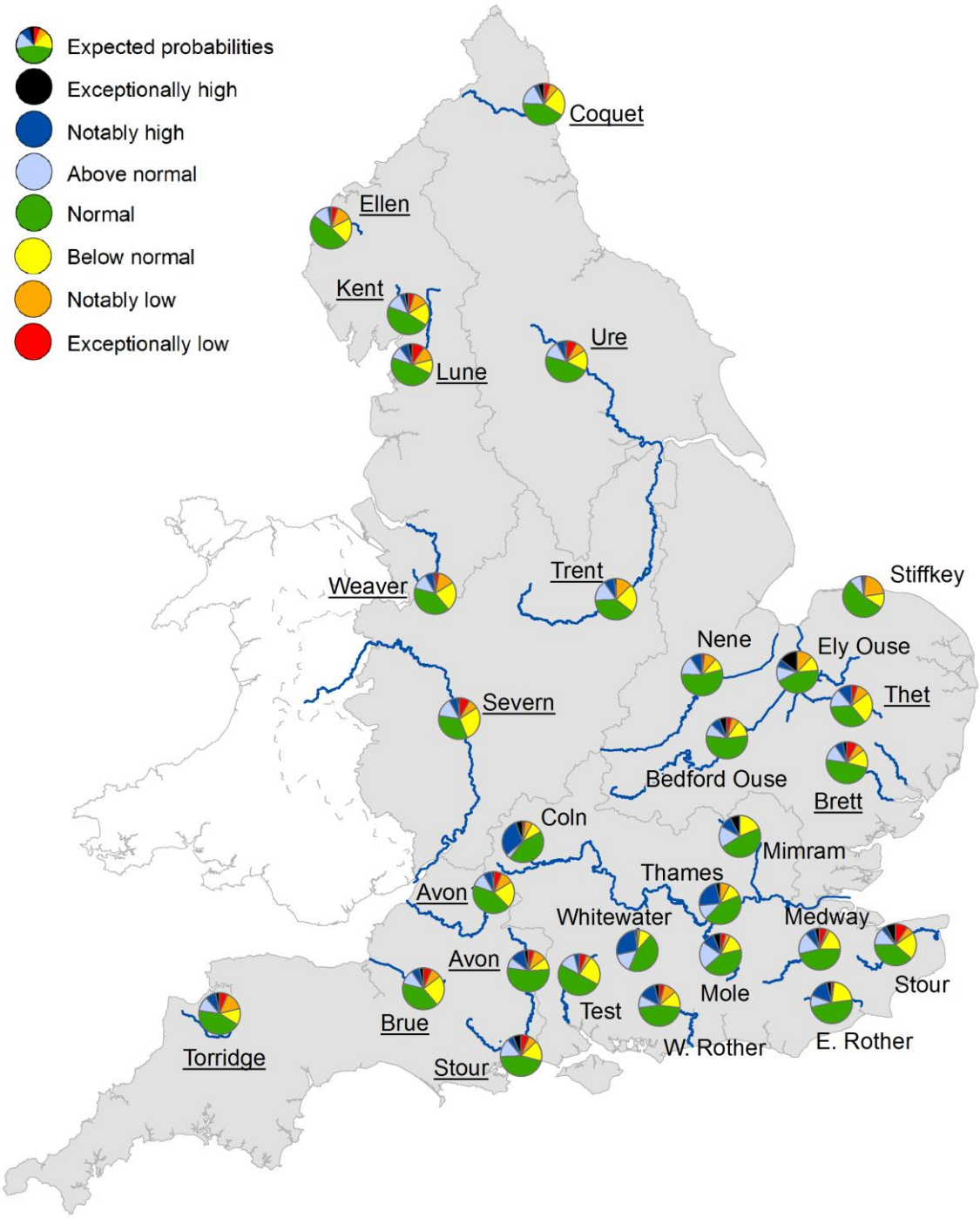
(Source: UK Centre for Ecology and Hydrology, Environment Agency)

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



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

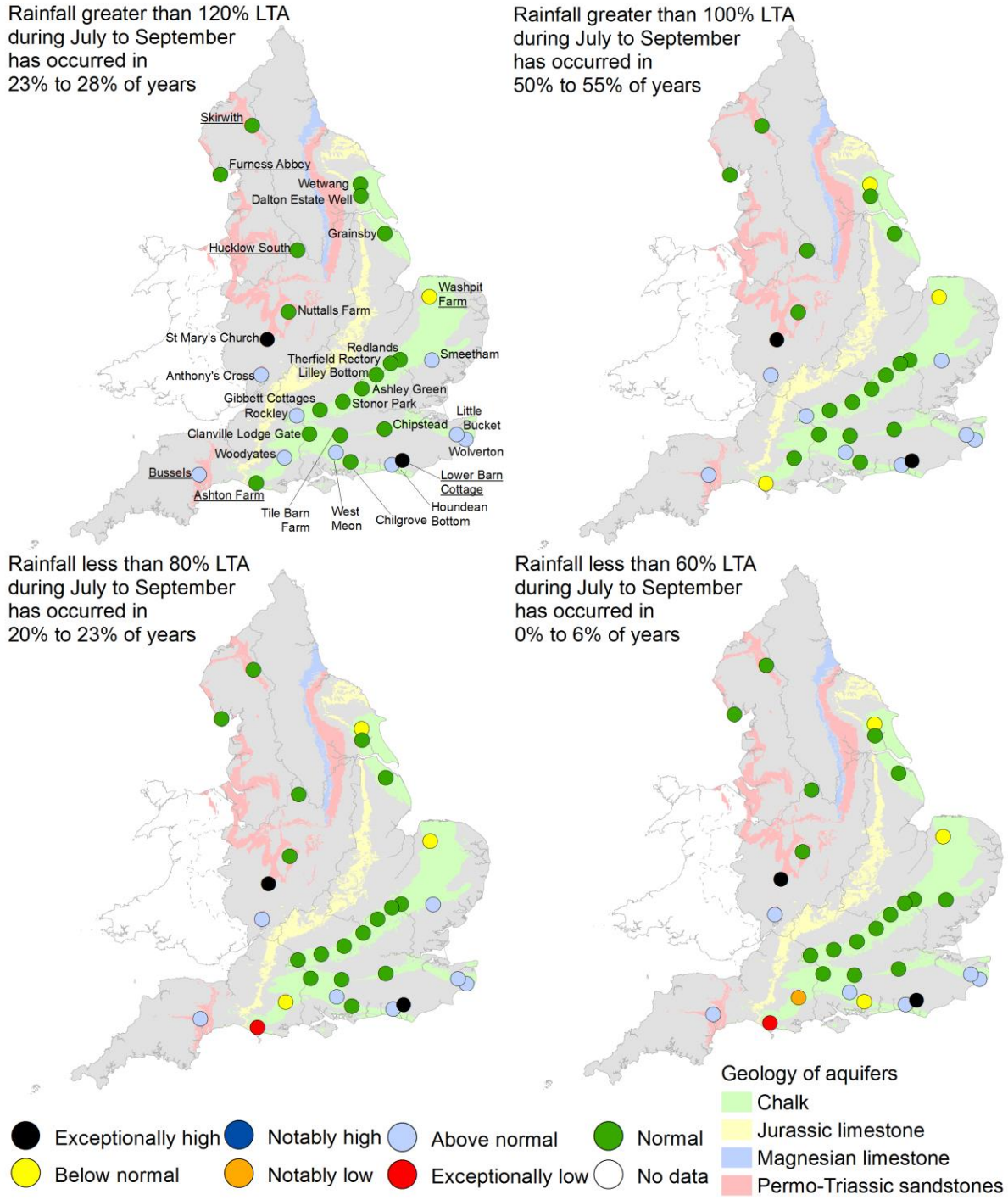
Figure 7.4: Probabilistic ensemble projections of river flows at key indicator sites up until the end of March 2024. Pie charts indicate probability, based on climatology, of the surface water flow at each site being e.g. exceptionally low for the time of year. Projections for underlined sites produced by CEH.



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

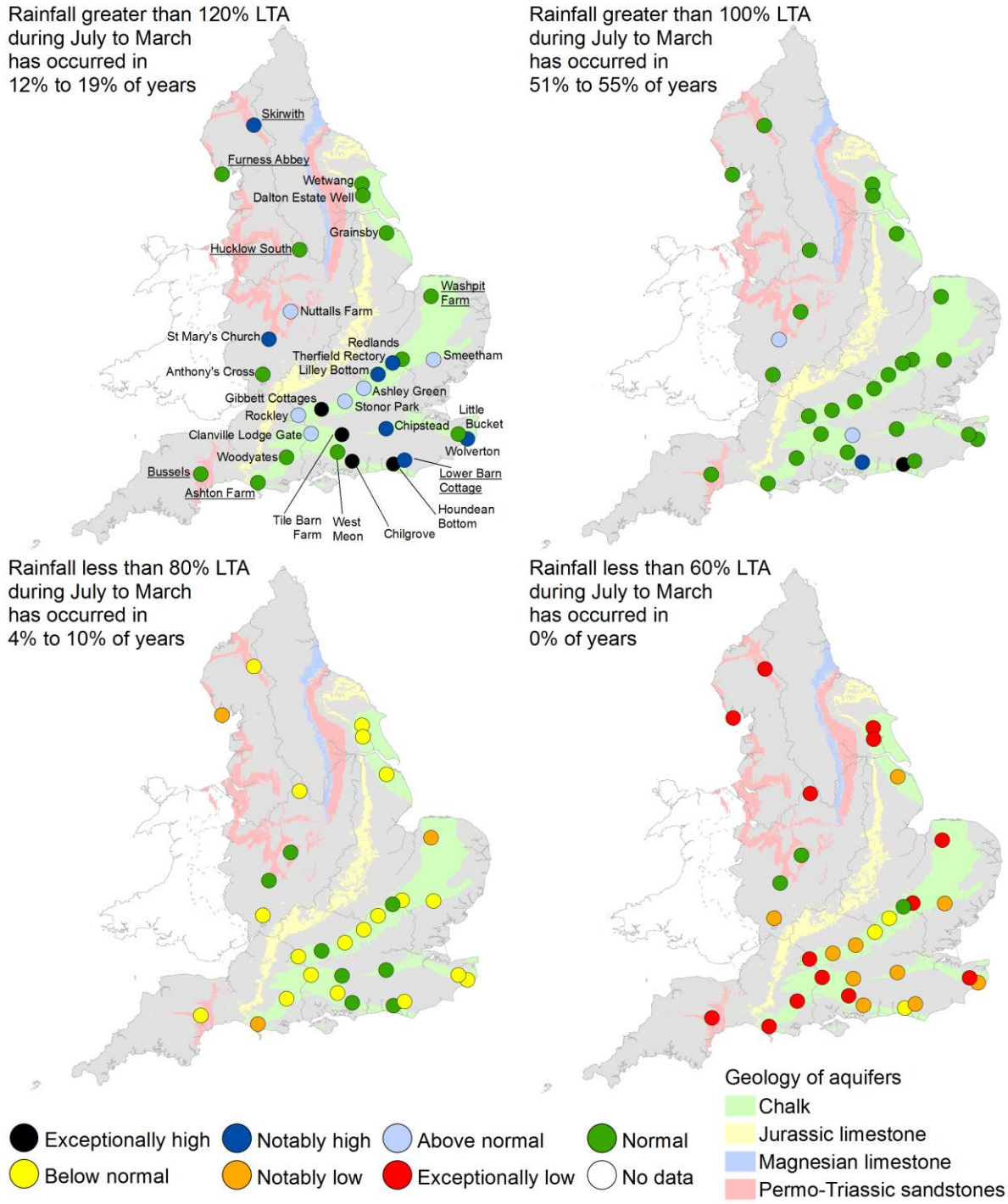
7.2 Groundwater

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



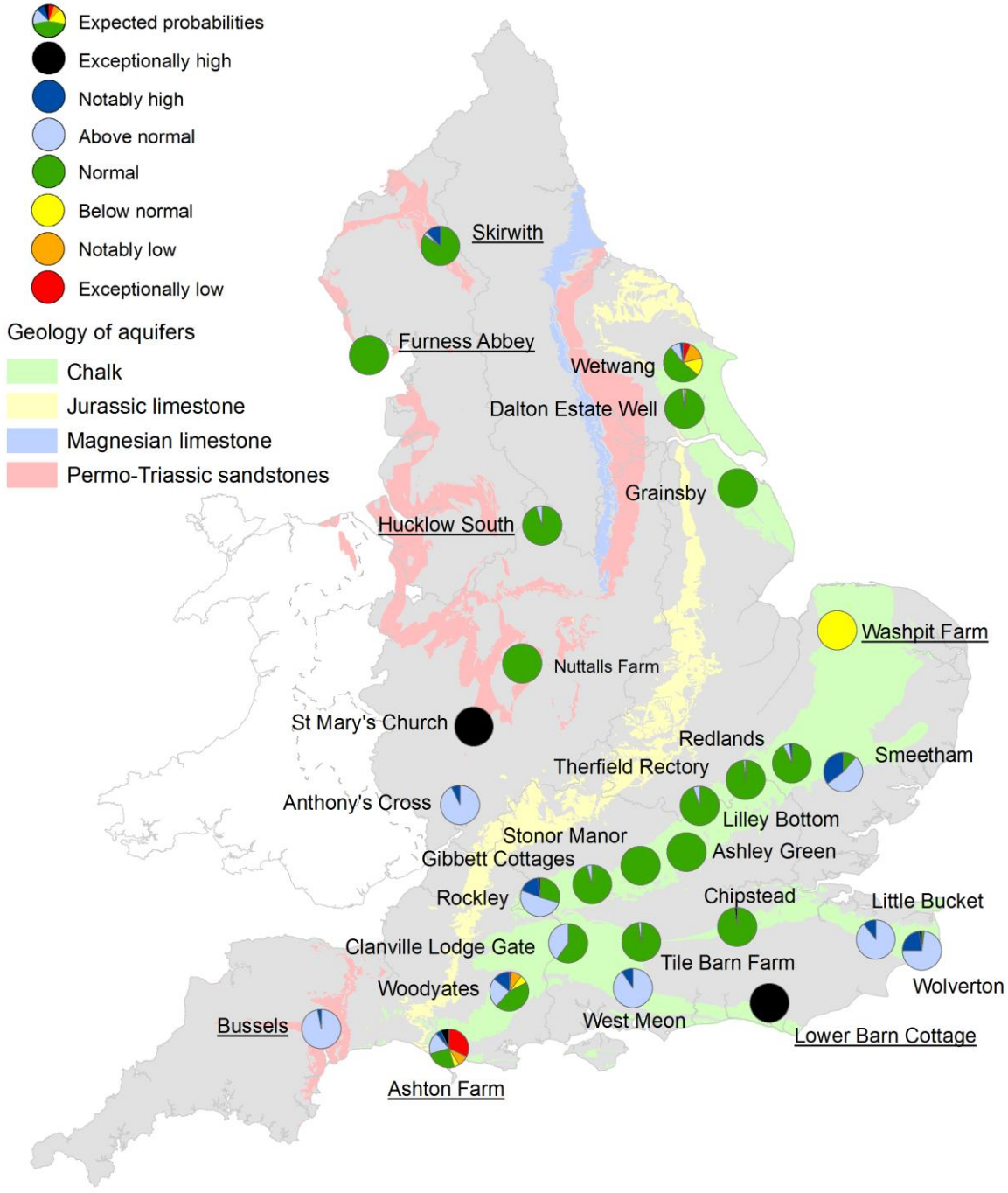
(Source: Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum BGS © NERC. Crown copyright all rights reserved. Environment Agency 100024198, 2023.

Figure 7.6: 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 rainfall between July 2023 and March 2024. Rainfall statistics based on occurrence in the historic record since 1891. Projections for underlined sites produced by BGS.



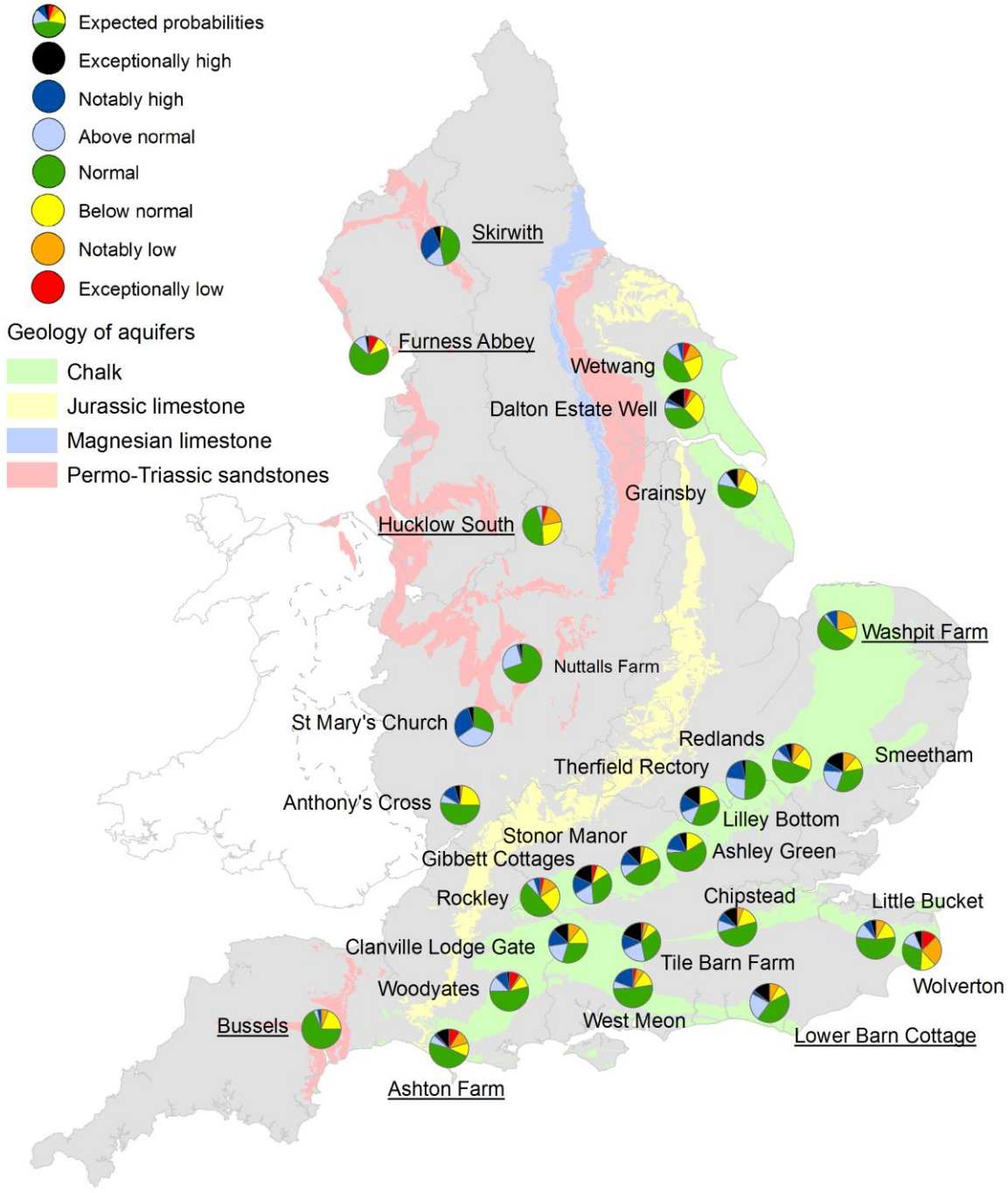
(Source: Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum BGS © NERC Crown copyright. All rights reserved. Environment Agency 100024198 2023.

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



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

Figure 7.8: 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, 2023.

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	Jun 2023 rainfall % of long term average 1961 to 1990	Jun 2023 band	Apr 2023 to June 2023 cumulative band	Jan 2023 to June 2023 cumulative band	Jul 2022 to June 2023 cumulative band
East England	49	Below Normal	Normal	Normal	Below normal
Central England	86	Normal	Normal	Normal	Normal
North-east England	73	Normal	Below normal	Below normal	Below normal
North-west England	91	Normal	Below normal	Normal	Normal
South-east England	62	Normal	Normal	Normal	Above normal
South-west England	52	Below Normal	Normal	Normal	Above normal
England	67	Normal	Below normal	Normal	Normal

9.2 River flows table

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

North East	Crakehill Topcliffe	Swale	Exceptionally low	Below normal
North East	Heaton Mill	Till		Below normal
North East	Doncaster	Don	Below normal	Normal
North East	Haydon Bridge	South Tyne	Exceptionally low	Normal
North East	Tadcaster	Wharfe	Below normal	Below normal
North West	Ashton Weir	Mersey	Exceptionally low	Below normal
North West	Caton	Lune	Notably low	Below normal
North West	Ouse Bridge	Derwent	Exceptionally low	Below normal
North West	Pooley Bridge	Eamont	Exceptionally low	Below normal
North West	St Michaels	Wyre	Below normal	Below normal
North West	Ashbrook	Weaver	Normal	Normal
South East	Allbrook + Highbridge	Itchen	Notably high	Notably high
South East	Feildes Weir	Lee	Normal	Above normal
South East	Hansteads	Ver	Above normal	Above normal
South East	Hawley	Darent	Normal	Above normal
South East	Horton	Great Stour	Normal	Above normal
South East	Kingston	Thames	Normal	Above normal

South East	Lechlade	Leach	Normal	Above normal
South East	Teston + Farleigh	Medway	Normal	Above normal
South East	Marlborough	Kennet	Notably high	Exceptionally high
South East	Udiam	Rother	Normal	Normal
South East	Ardingley Gs	Ouse	Normal	Above normal
South East	Princes Marsh Gs	Rother	Normal	Notably high
South West	Amesbury	Upper Avon	Above normal	Notably high
South West	Bathford	Avon	Normal	Above normal
South West	Bishops Tull	Tone	Normal	Exceptionally high
South West	East Stoke	Frome	Normal	Exceptionally high
South West	Great Somerford	Avon	Normal	Above normal
South West	Gunnislake	Tamar	Below normal	Above normal
South West	Hammoon	Middle Stour	Normal	Notably high
South West	Knapp Mill	Avon	Normal	Above normal
South West	Lovington	Upper Brue	Normal	Exceptionally high
South West	Thorverton	Exe	Normal	Normal
South West	Torrington	Torridge	Notably low	Above normal

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

9.3 Groundwater table

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

North East	Aycliffe Nra2	Skerne Magnesian Limestone	Normal	Normal
North East	Wetwang	Hull & East Riding Chalk	Normal	Normal
North West	Priors Heyes	West Cheshire Permo-Triassic Sandstone	Exceptionally high	Exceptionally high
North West	Skirwith (sandstone)	Carlisle Basin Permo-Triassic sandstone	Normal	Normal
North West	Lea Lane	Fylde Permo-Triassic Sandstone	Normal	Normal
South East	Chilgrove (chalk)	Chichester-Worthing-Portsdown Chalk	Notably high	Exceptionally high
South East	Clanville Gate Gwl	River Test Chalk	Above normal	Above normal
South East	Houndean Bottom Gwl	Brighton Chalk Block	Above normal	Notably high
South East	Little Bucket (chalk)	East Kent Chalk - Stour	Above normal	Above normal
South East	Jackaments Bottom (jurassic Limestone)	Burford Oolitic Limestone (Inferior)	Normal	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	Above normal	Above normal
South West	Tilshead	Upper Hampshire Avon Chalk	Notably high	Notably high
South West	Woodleys No1	Otterton Sandstone Formation	Normal	Normal
South West	Woodyates	Dorset Stour Chalk	Above normal	Exceptionally high

9.4 Reservoir table

Geographic region	% Full	Average comparison
East England	91	Below average
Central England	80	Below average
North-east England	79	Below average
North-west England	70	Below average
South-east England	96	Above average
South-west England	76	Below average
England	81	Below average