Monthly water situation report: Midlands

1 Summary - October 2025

Please see Section 7.3 for a map detailing the Midlands regional coverage of this report.

Rainfall - In October, all but one of the Midlands hydrological catchments received normal amounts of rainfall compared to the long term average (LTA). Shropshire Plains received below normal rainfall amounts compared to its LTA.

Soil moisture deficit - Soil moisture deficit (SMD) across the Midlands has decreased in October, meaning soils have become wetter. However, by the end of the month, soils across most of the Midlands were still drier than their LTA for the time of year.

River flows – In October, the majority of sites recorded normal monthly mean flows. Four sites recorded below normal and two recorded notably low monthly mean flows.

Groundwater levels - As of the end of October, most Midlands groundwater sites recorded normal or above normal groundwater levels compared to the LTA. However, Anthonys Cross recorded below normal groundwater levels and Southards Lane recorded notably low levels.

Reservoir stocks - By the end of October, most Midlands reservoirs recorded below average storage levels compared to their LTA. Clywedog, Vyrnwy and Tittesworth all recorded above average levels compared to their LTA.

1.1 Rainfall

In October, all but one of the Midlands hydrological catchments received normal amounts of rainfall compared to the LTA. These ranged from 80% to 112% of their LTA totals. Shropshire Plains, in the north-west, received below normal rainfall amounts compared to its LTA. This was at 68% of rainfall received compared to its LTA.

Over the last 3 months, again the majority of the Midlands hydrological catchments received normal amounts of rainfall compared to the LTA. These normal catchments received between 81% and 111% of rainfall compared to their LTA. Three catchments in the south-east received below average rainfall totals ranging from 66% and 75% of their LTA.

Over the last 6 months, only 3 catchments received normal amounts of rainfall compared to their LTA. There were all in the northern half of the Midlands. All catchments received below 100% rainfall amounts of their 6 month LTA. Three catchments received below normal rainfall amounts compared to the LTA. Five catchments in the southern half of the Midlands received notably low rainfall amounts compared to their LTA. The Avon catchment in the south-east of the Midlands, received exceptionally low rainfall amounts compared to the LTA with 61%.

Over the past year, a similar spatial trend persisted compared to the past 6 months, with the majority of catchments receiving below normal and notably low rainfall amounts compared to the LTA. All catchments received below 100% rainfall amounts of their one year LTA. Only the Welsh Mountains, in the west, received a normal amount of rainfall over the past 12 months, with it receiving 85% of its LTA. The Avon catchment again receiving exceptionally low rainfall amounts compared to its LTA with 74%.

1.2 Soil moisture deficit and recharge

SMD across the Midlands in October has decreased since last month, meaning that soils have become wetter. The majority of the hydrological catchments recorded a SMD value of 41mm to 100mm. The Welsh Mountains had the lowest SMD values at between 11mm to 40mm, making it the wettest catchment. Catchments to the south-east were drier than the north-west. The Welsh Mountains SMD value is a difference between -5mm and 5mm from its LTA. The Tame, Soar and Avon catchments in the south-east had SMD amounts 26mm to 50mm higher than their LTA. All other catchments had 6mm to 25mm of SMD higher than their LTA.

1.3 River flows

In October, the majority of the sites in the Midlands recorded normal monthly mean flows. All sites received monthly mean flows of less than 100% of their LTA. Four sites, scattered across the northern half of the Midlands, recorded below normal monthly mean flows. These were Walcot, Clifton Hall, Kegworth and Auckley. Two sites, Ebley Mill in the south, and Great Bridgeford in the north, received notably low monthly mean flows.

Wedderburn Bridge has been showing unreliable data from September 2024 onwards, therefore, data has been removed from this report. Due to current issues with recording at low flows affecting Deerhurst, data for Haw Bridge was used in place of Deerhurst.

1.4 Groundwater levels

At the end of October, all sites except Anthonys Cross and Southards Lane recorded normal or above normal groundwater levels compared to their LTA. Anthonys Cross in the south recorded below normal groundwater levels compared to the LTA. Southards Lane in the north-east recorded notably low groundwater levels compared to the LTA.

1.5 Reservoir stocks

By the end of September, the majority of Midlands reservoirs had below average storage compared to the LTA. They ranged between 21% at Charnwood and 70% at Draycote. Three reservoirs; Clywedog, Vyrnwy and Tittesworth, all recorded above average storage levels compared to their LTA, ranging from 70% at Tittesworth to 85% at Vyrnwy.

1.6 Environmental impact

Both the West Midlands and East Midlands areas moved into drought incident status on 15 July 2025. We continue to work with water companies and other abstractors to manage water resources and take precautionary actions. A number of low flow alleviation schemes are also active across the region.

1.7 River Severn operations

The River Severn is regulated to maintain a minimum flow at Bewdley gauging station. This ensures sufficient water flows along the river to support environmental and water supply requirements. Regulation is instigated when flows drop below a threshold. The 2025 regulation season has seen 86 days of river regulation, which commenced on 9 May 2025. The last day of regulation was 11 September 2025.

1.8 River Wye operations

Following on from the previous month, River Wye Regulation continued throughout October. Regulation releases occurred from 1 October 2025 till 28 October 2025, with the exception of 13 October. Regulation releases ceased on 29 October 2025 and for the rest of the month.

1.9 Water abstraction restrictions

As of 31 October 2025 there were 31 water abstraction licence restrictions in place across the Midlands affecting 47 licences in total.

Please refer to the appendices for a full list of water abstraction licence restrictions.

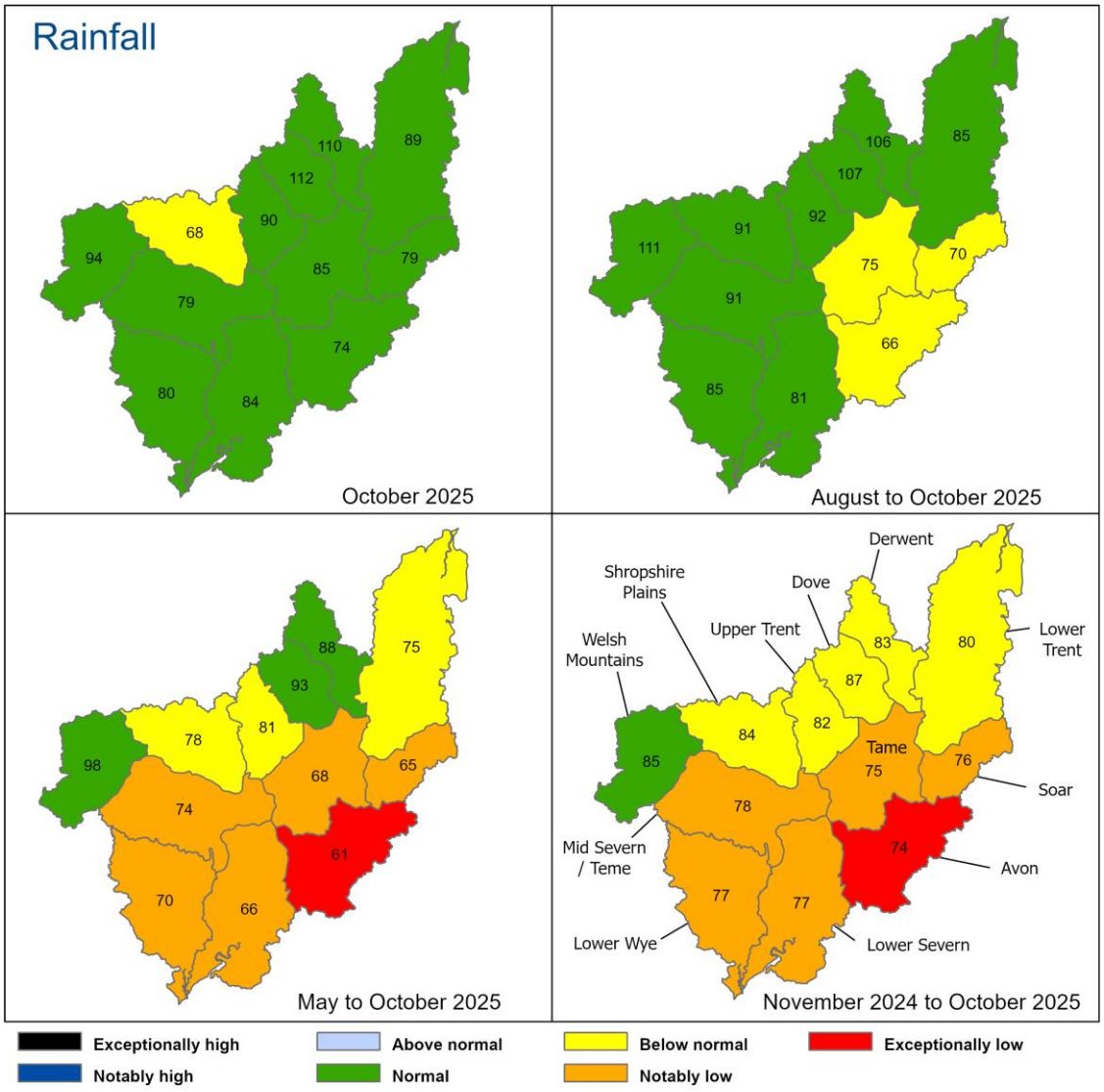
Author: Midlands Hydrology, midlandshydrology@environment-agency.gov.uk

Contact Details: 03708 506 506

2 Rainfall

2.1 Rainfall map

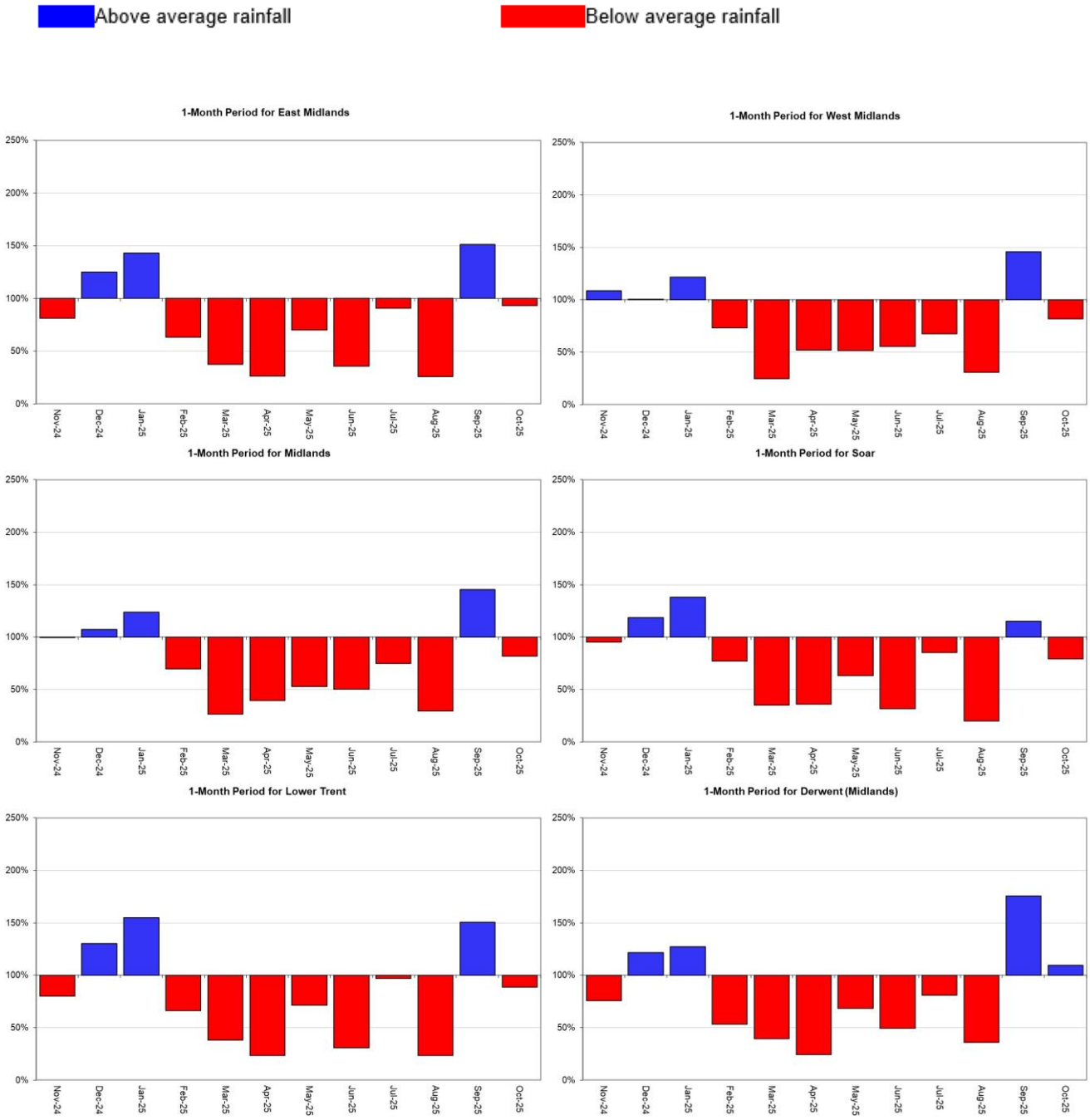
Figure 2.1: Rainfall as % LTA for hydrological areas for the current month (up to 31 October 2025), the last 3 months, the last 6 months, and the last 12 months, relative to an analysis of respective historic totals from 1991 to 2020. Table available in the appendices with detailed information.



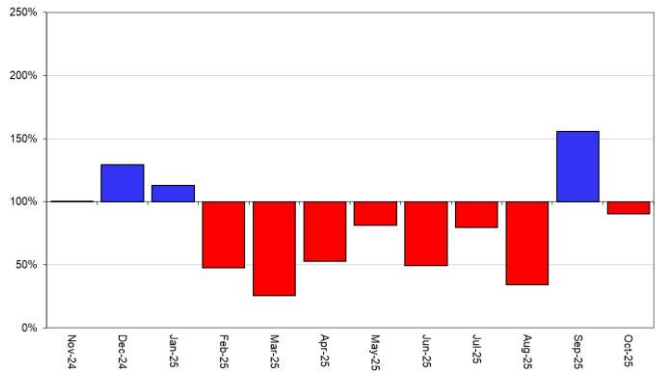
Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges (Source: Environment Agency. Crown Copyright, AC0000807064, 2025). HadUK data based on the Met Office 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2025).

2.2 Rainfall charts

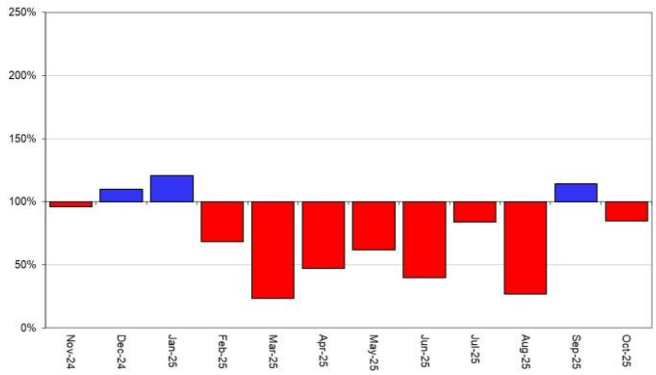
Figure 2.2: Monthly rainfall totals for the past 12 months as a percentage of the 1991 to 2020 long term average for hydrological areas across the Midlands region.



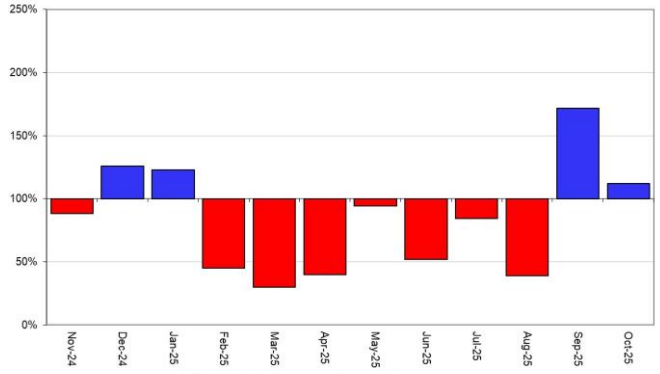
1-Month Period for Upper Trent



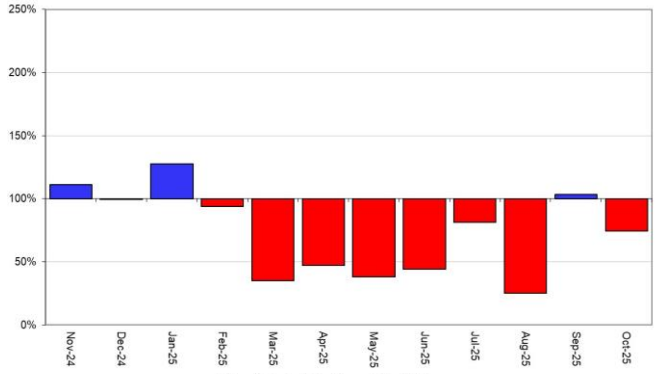
1-Month Period for Tame



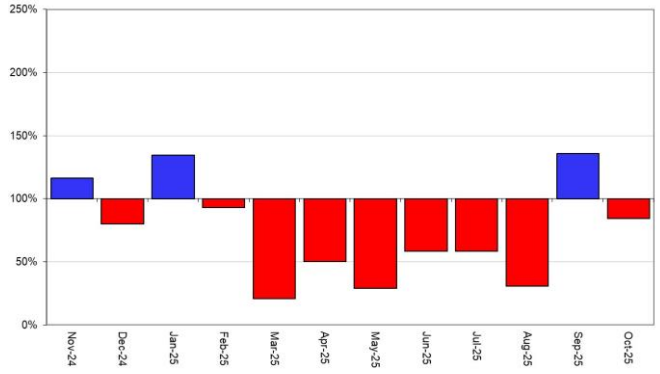
1-Month Period for Dove



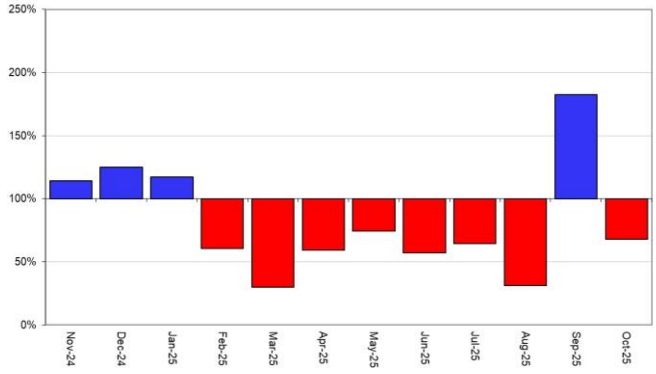
1-Month Period for Avon to Evesham

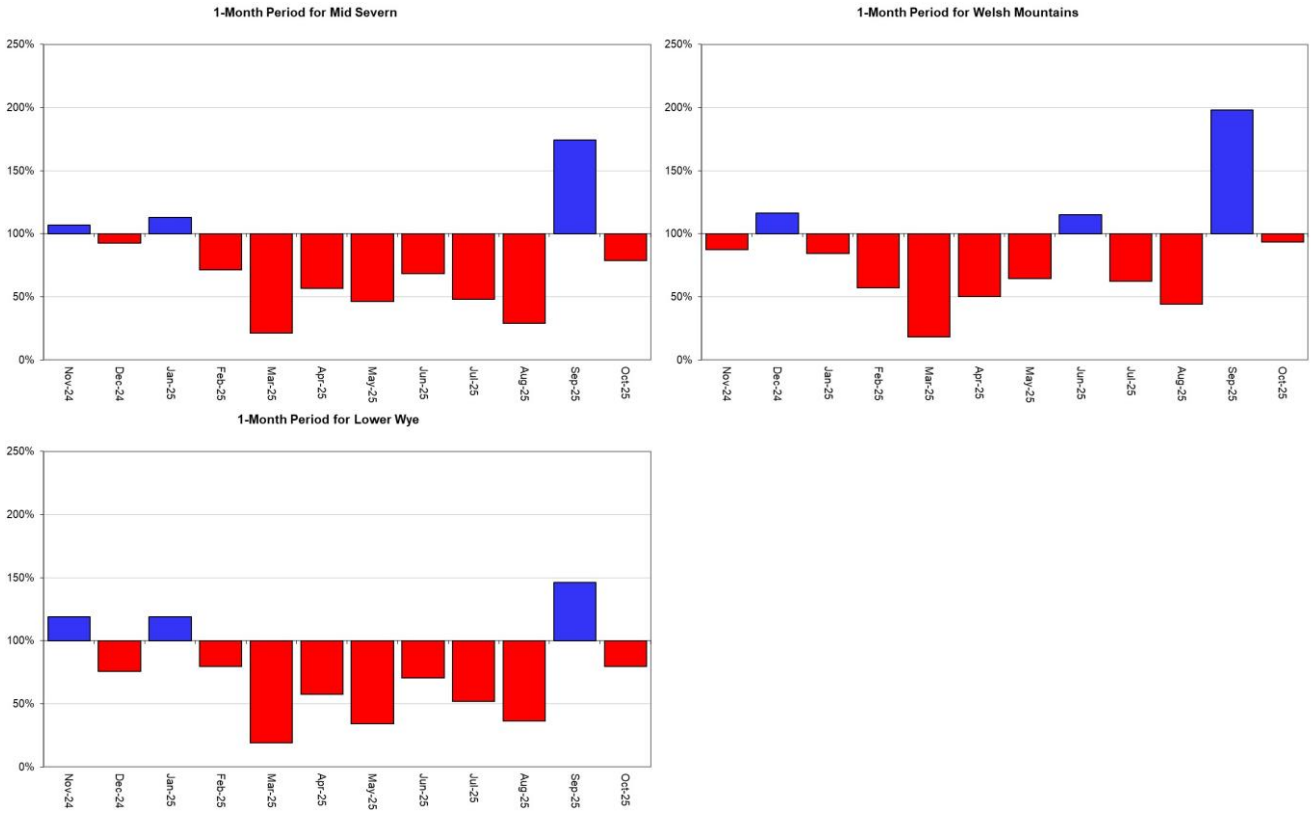


1-Month Period for Lower Severn Estuary



1-Month Period for Shropshire Plains



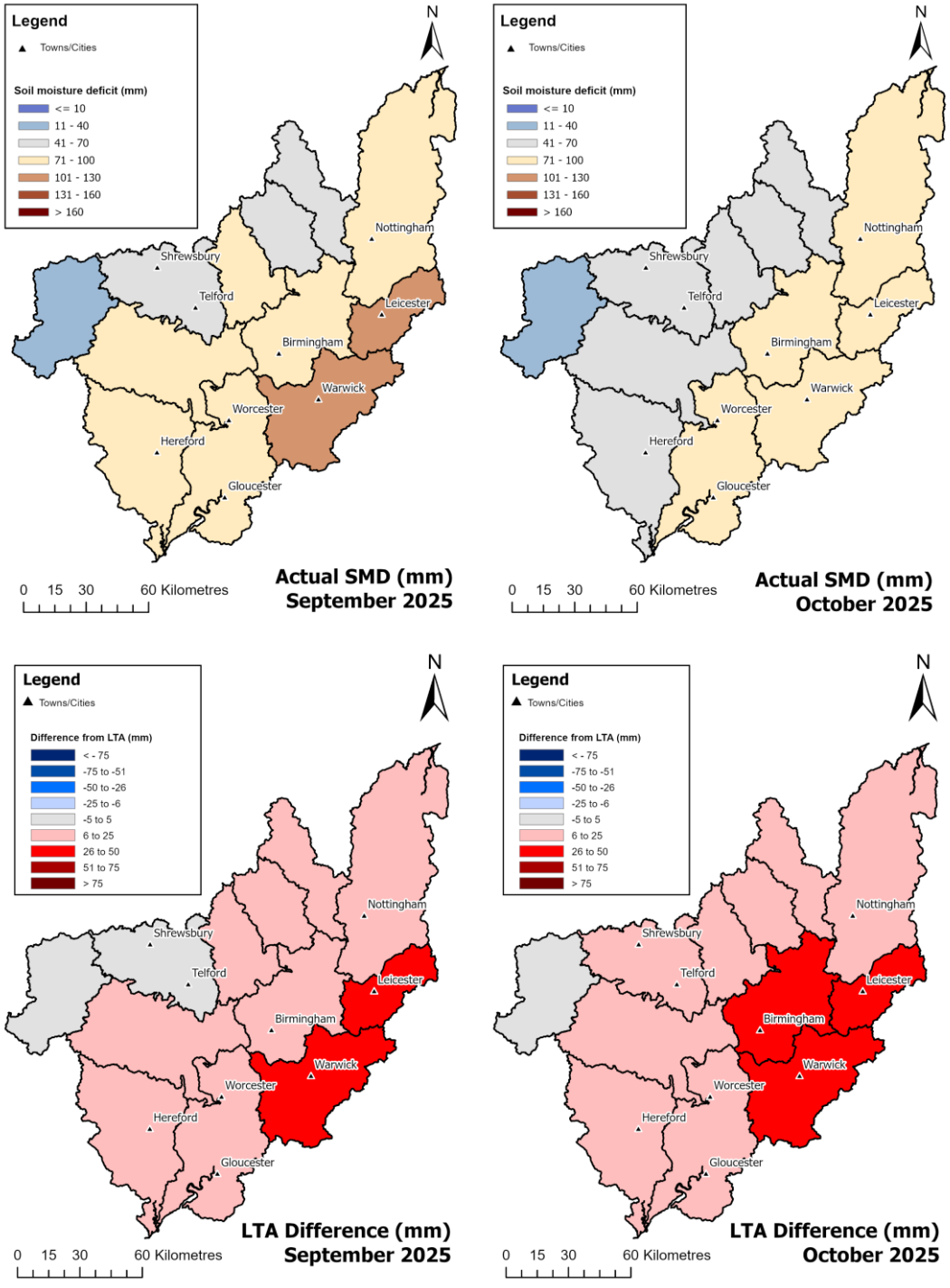


Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges (Source: Environment Agency. Crown Copyright, AC0000807064, 2025). HadUK data based on the Met Office 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2025).

3 Soil moisture deficit

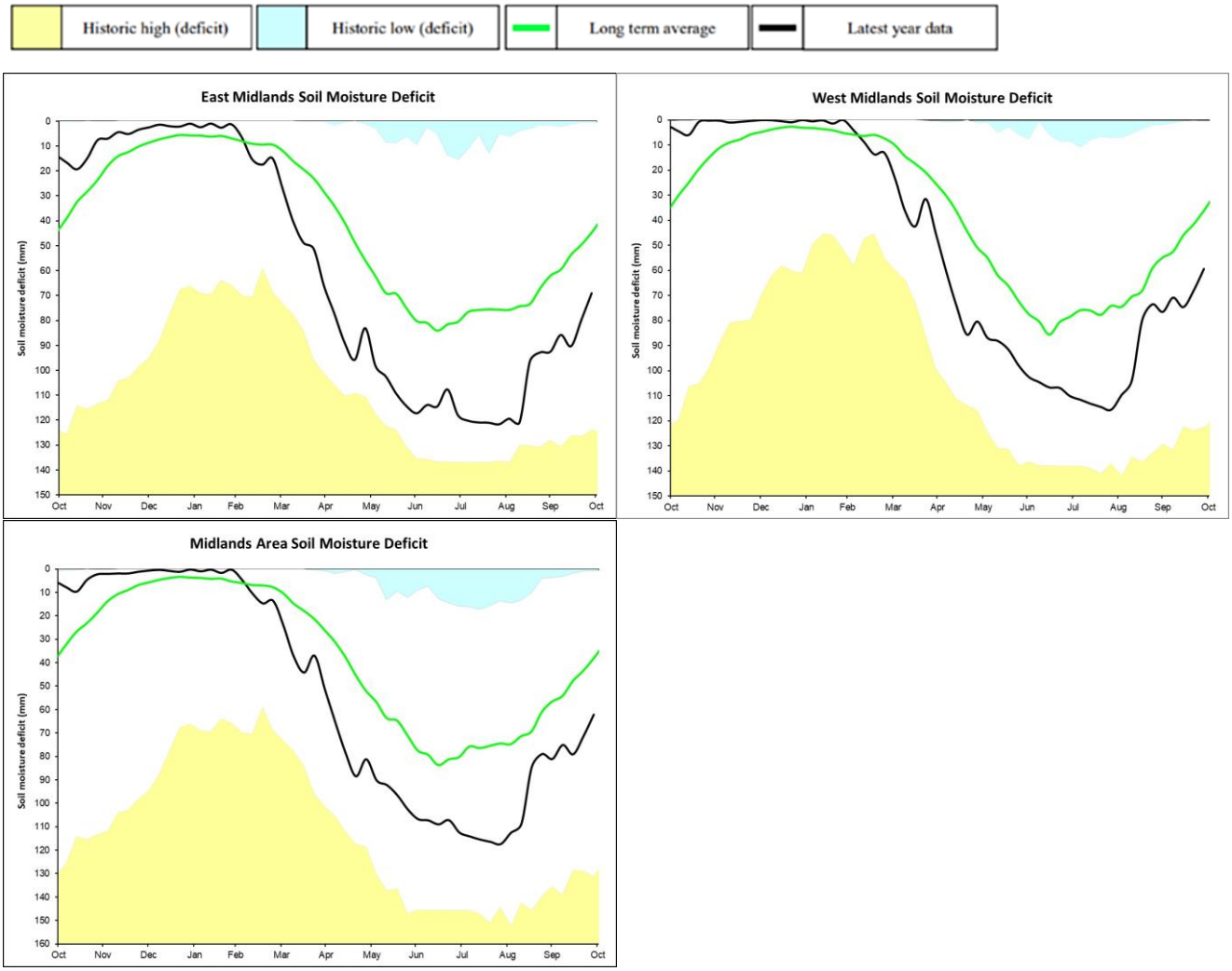
3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for weeks ending 31 October 2025 and shows the difference (mm) of the actual soil moisture deficit from the 1991 to 2020 long term average soil moisture deficits. MORECS data for real land use.



3.2 Soil moisture deficit charts

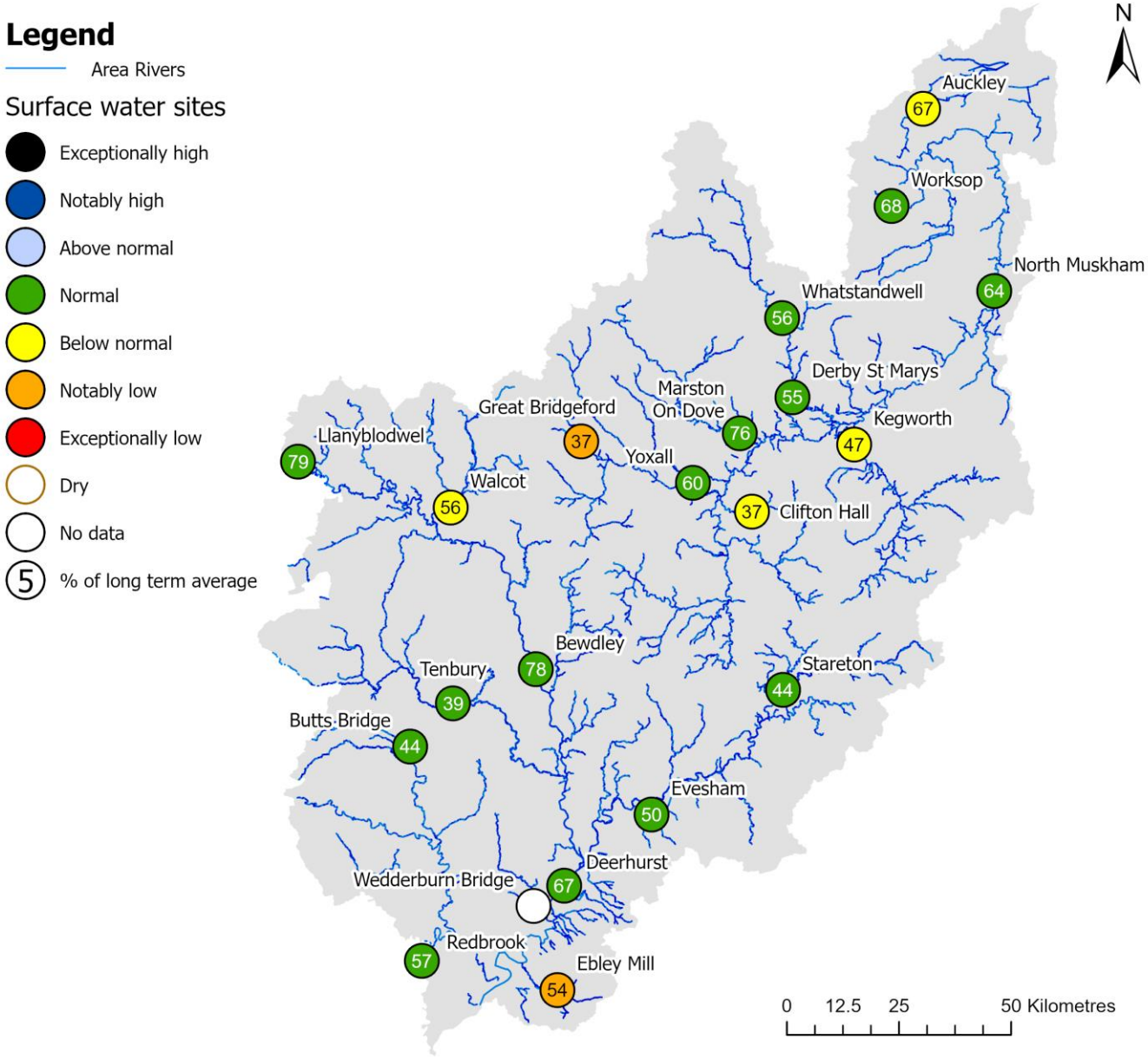
Figure 3.2: Latest soil moisture deficit charts for selected areas across the Midlands.



4 River flows

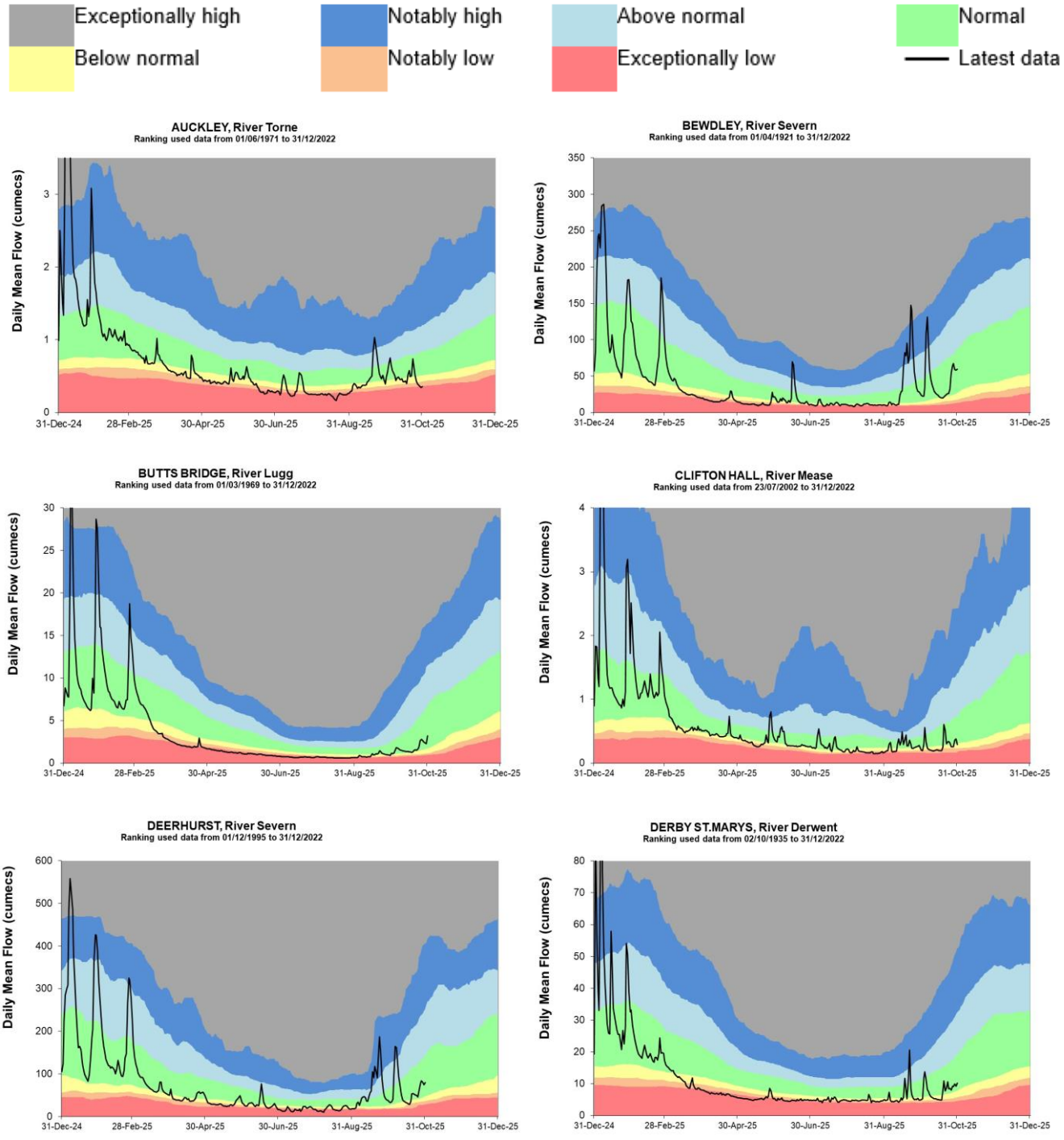
4.1 River flows map

Figure 4.1: Monthly mean river flow for indicator sites for October 2025, expressed as a percentage of the respective long term average and classed relative to an analysis of historic October monthly means. Table available in the appendices with detailed information.

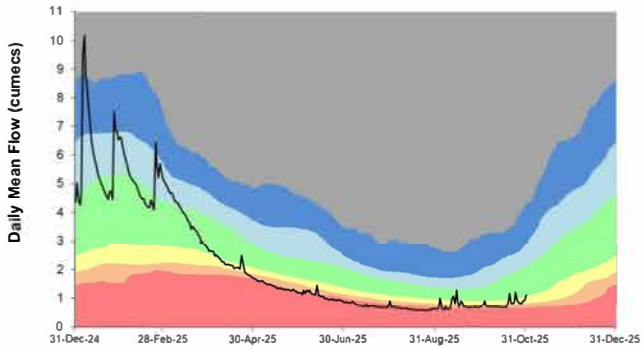


4.2 River flow charts

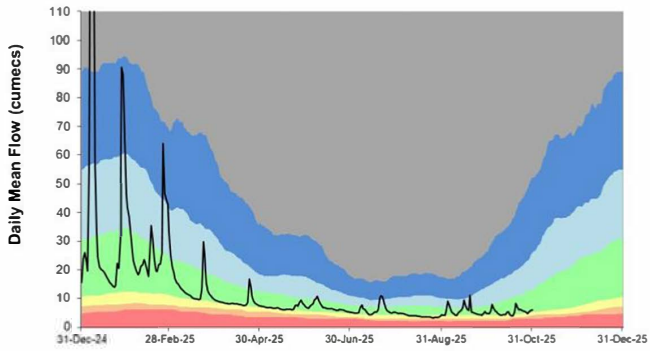
Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



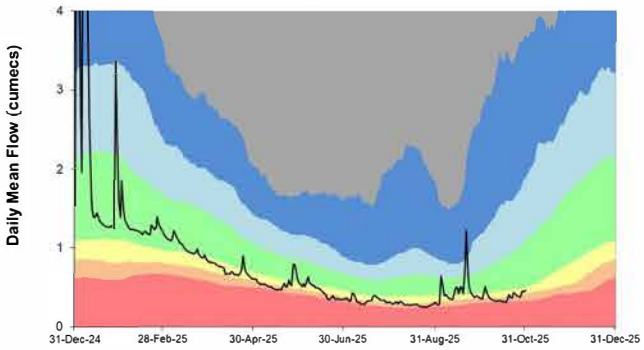
EBLEY MILL, River Frome
Ranking used data from 01/04/1969 to 31/12/2022



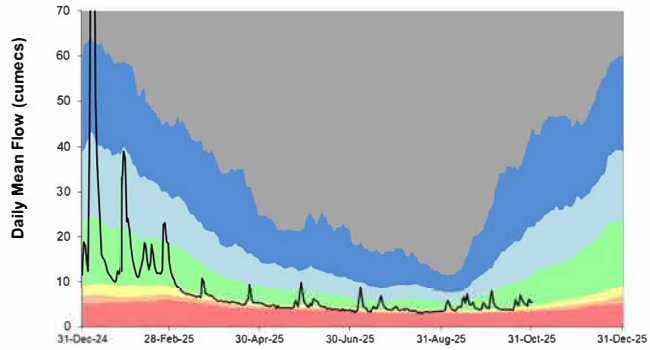
EVESHAM, River Avon
Ranking used data from 01/12/1936 to 31/12/2022



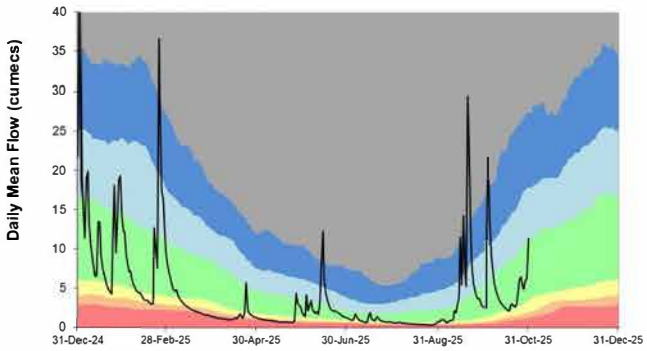
GREAT BRIDGFORD, River Sow
Ranking used data from 18/01/1971 to 31/12/2022



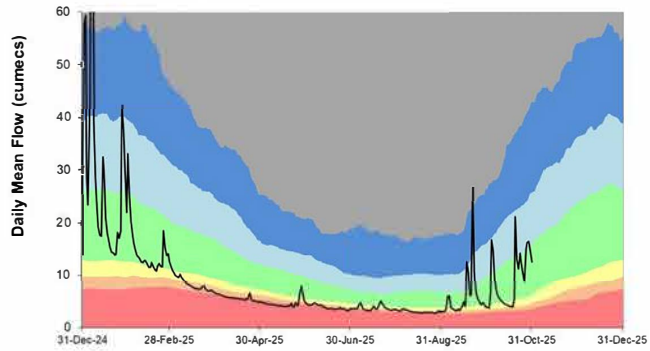
KEGWORTH, River Soar
Ranking used data from 01/12/1978 to 31/12/2022



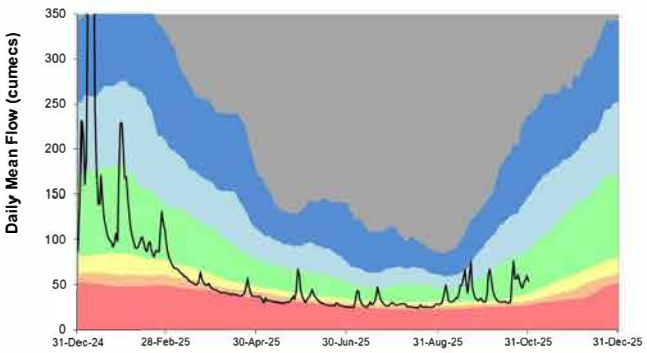
LLANYBLODWEL, Afon Tanat
Ranking used data from 01/06/1973 to 31/12/2022



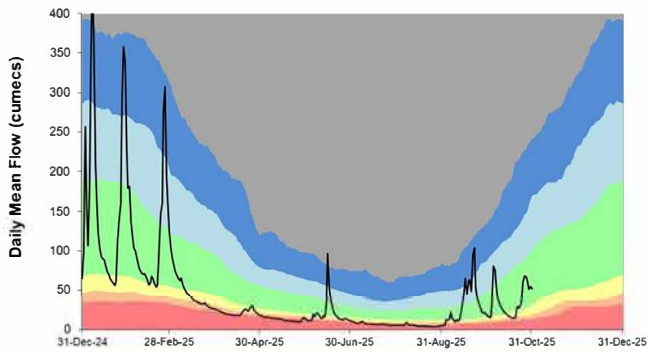
MARSTON ON DOVE, River Dove
Ranking used data from 01/07/1965 to 31/12/2022



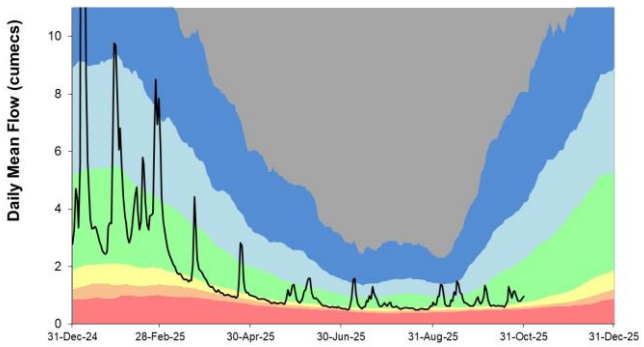
NORTH MUSKHAM, River Trent
Ranking used data from 03/10/1969 to 31/12/2022



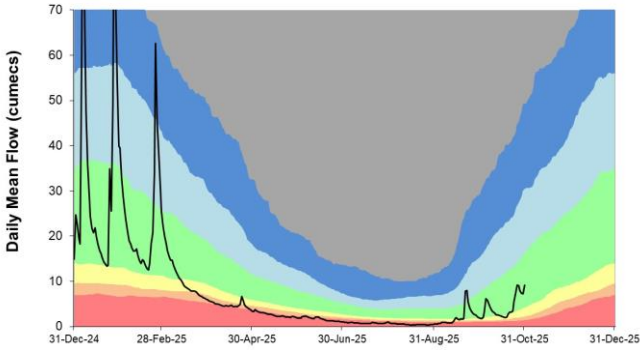
REDBROOK, River Wye
Ranking used data from 01/10/1969 to 31/12/2022



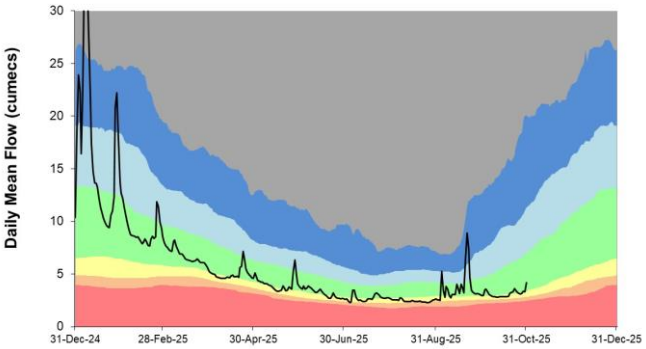
STARETON, River Avon
Ranking used data from 01/10/1962 to 31/12/2022



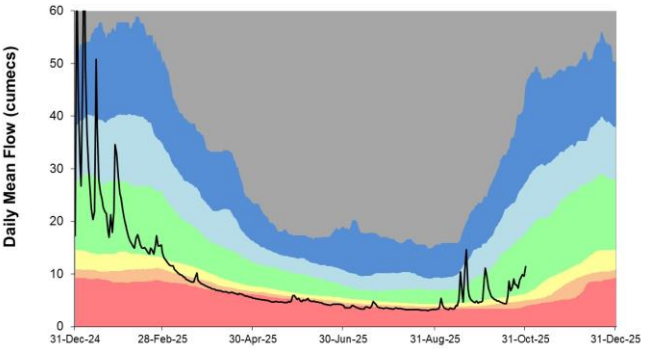
TENBURY, River Teme
Ranking used data from 01/10/1956 to 31/12/2022



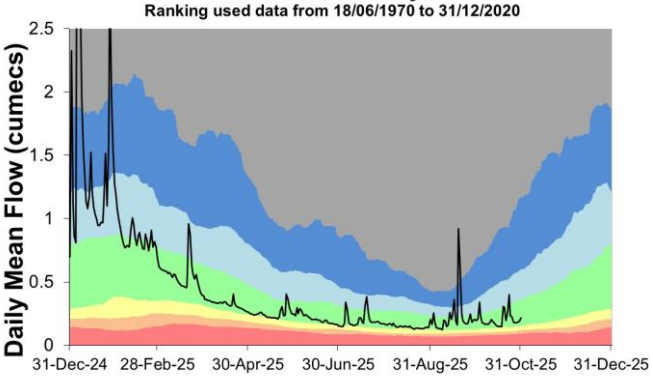
WALCOT, River Tern
Ranking used data from 01/10/1960 to 31/12/2022



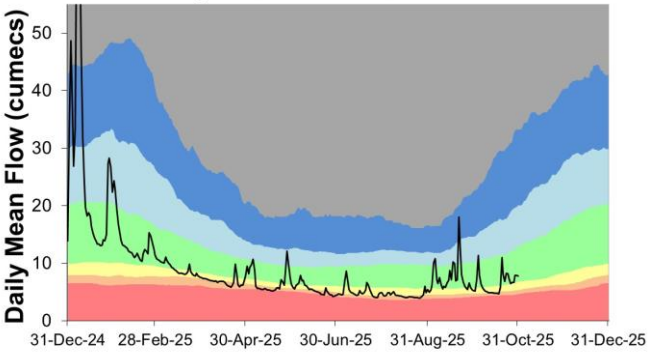
WHATSTANDWELL, River Derwent
Ranking used data from 01/10/1992 to 31/12/2022



WORKSOP, River Ryton
Ranking used data from 18/06/1970 to 31/12/2020



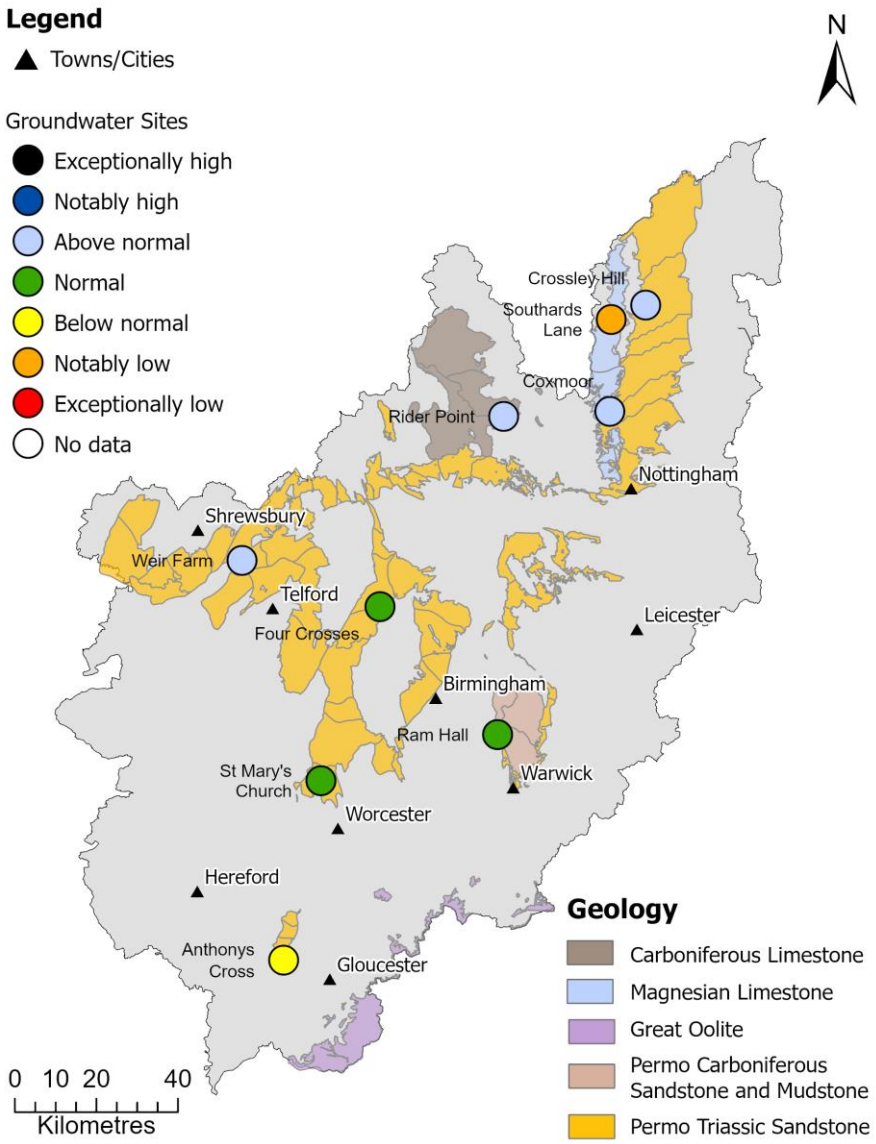
YOXALL, River Trent
Ranking used data from 01/10/1959 to 31/12/2022



5 Groundwater levels

5.1 Groundwater levels map

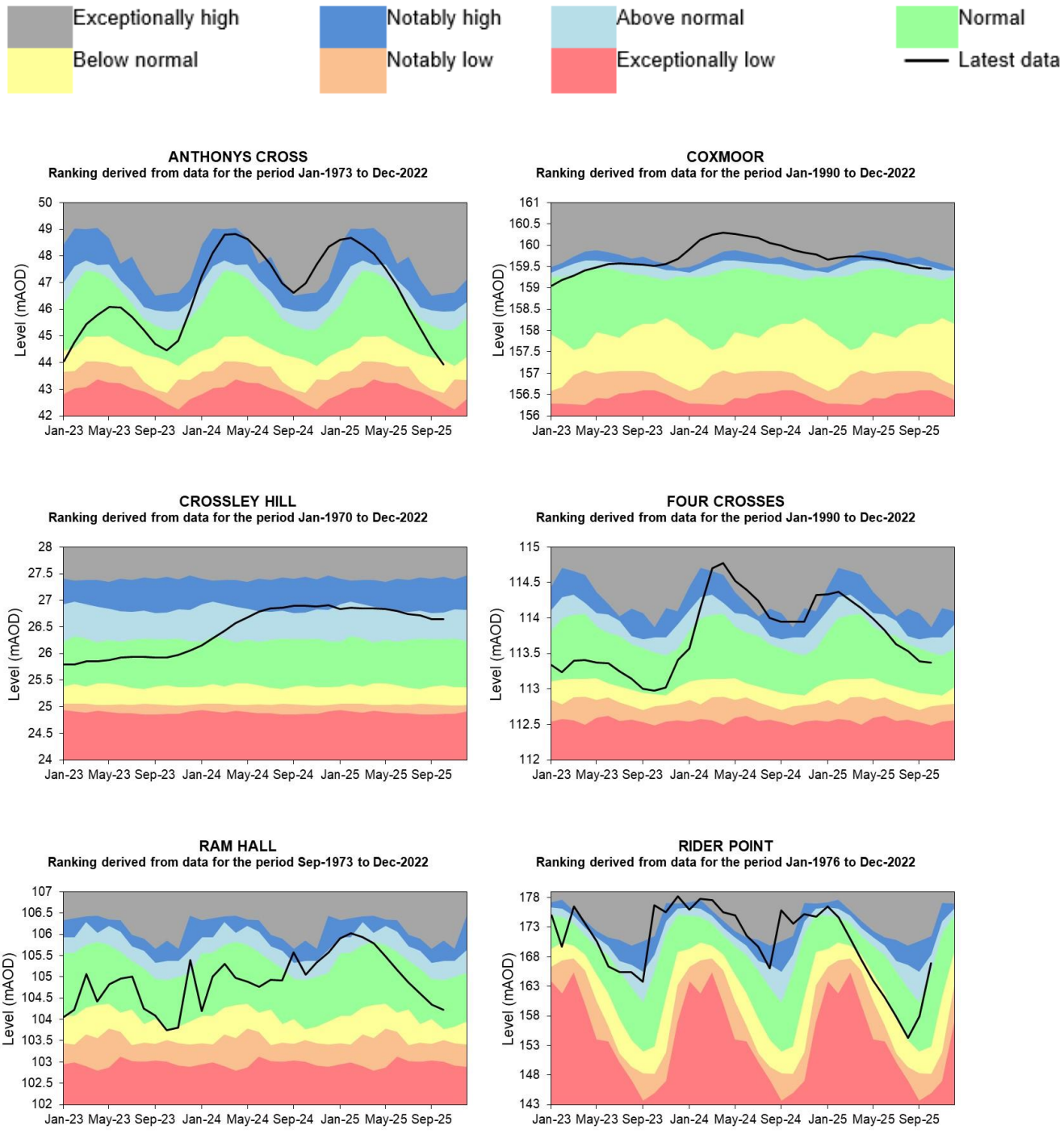
Figure 5.1: Groundwater levels for indicator sites at the end of October 2025, classed relative to an analysis of respective historic October levels. Table available in the appendices with detailed information, including aquifer type.

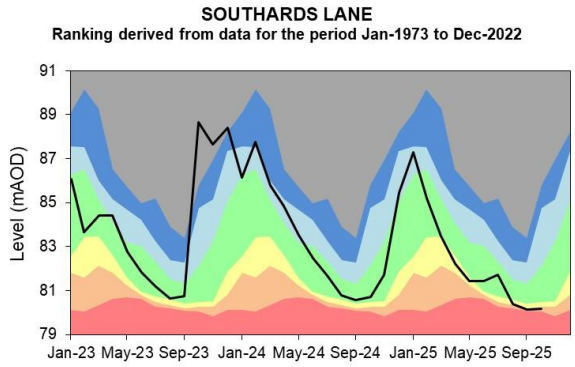


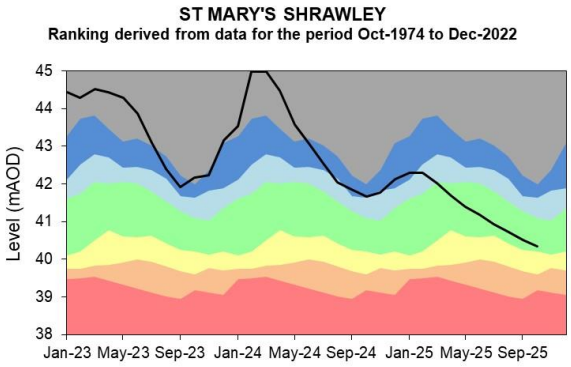
(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, AC0000807064, 2025.

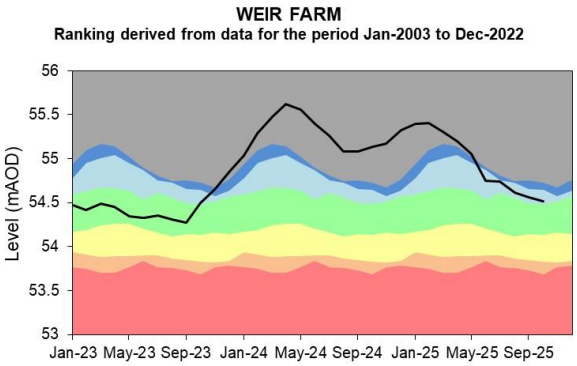
5.2 Groundwater level charts

Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels.





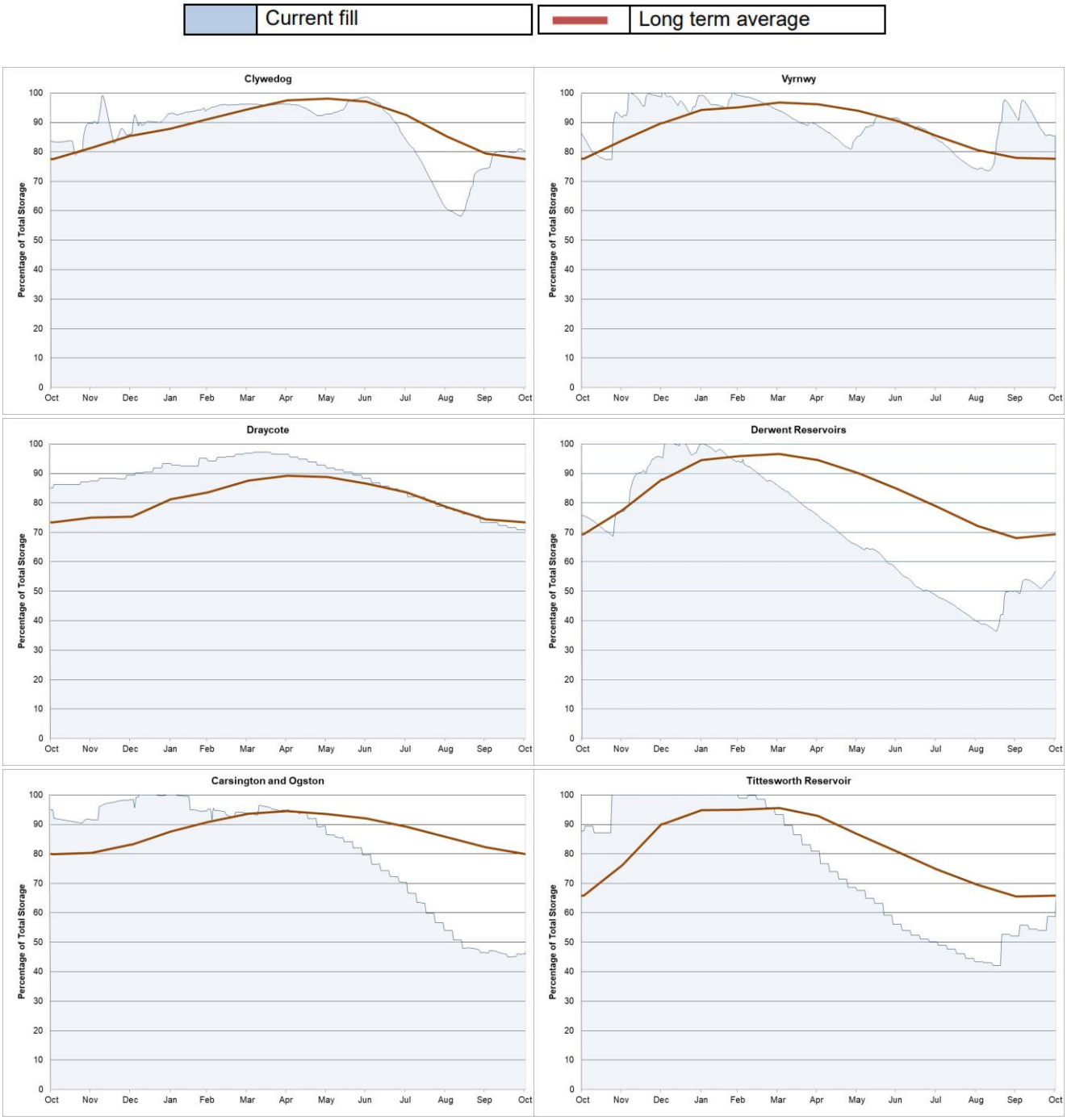


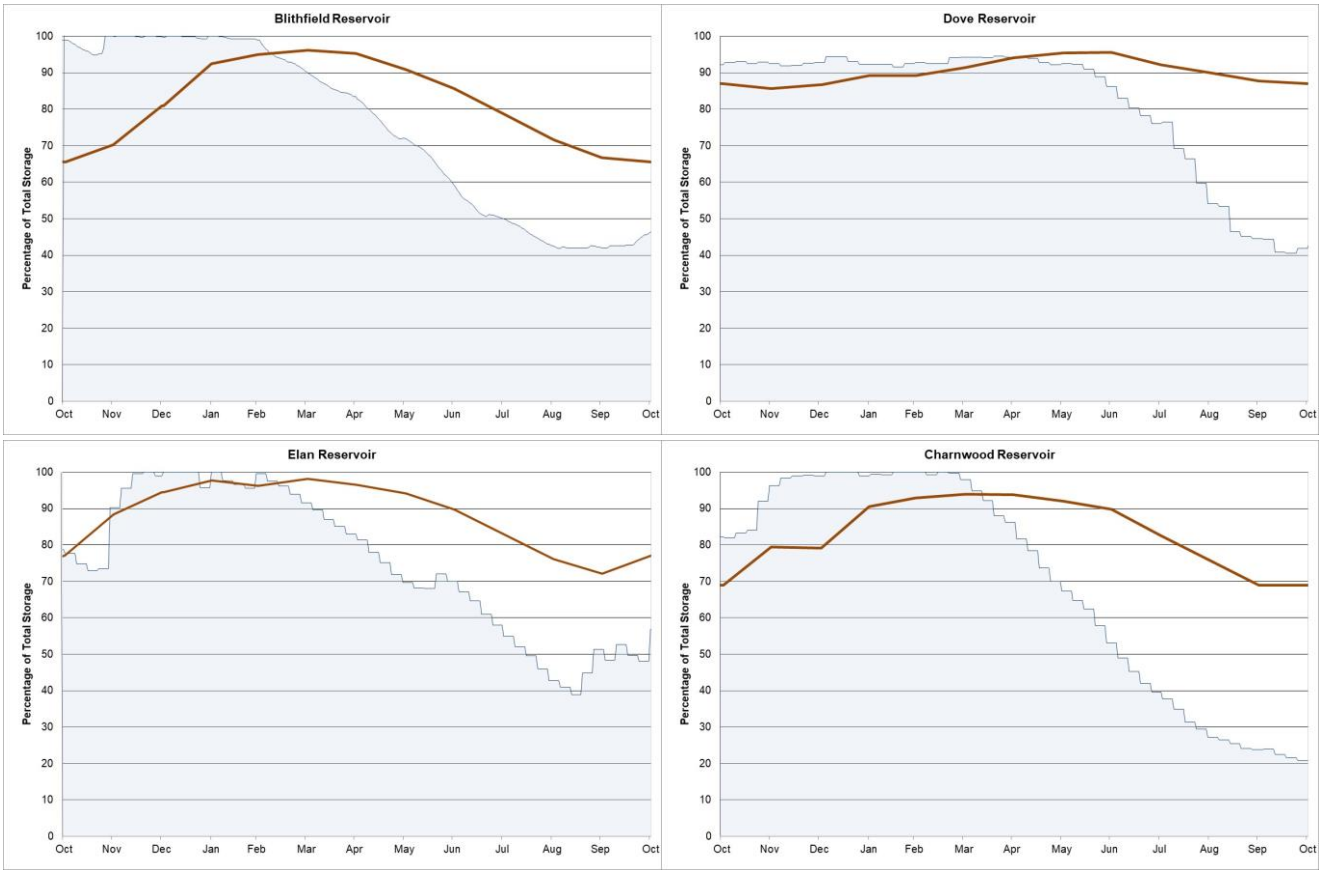


(Source: Environment Agency, 2025).

6 Reservoir stocks

Figure 6.1: End of month (October 2025) regional reservoir stocks compared to long term average stocks. Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length. Please see Section 7.4 for a map detailing the locality of the Midlands reservoirs reported on.





(Source: water companies).

7 Glossary

7.1 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}).

Effective rainfall

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

Field capacity

Soil at field capacity is holding all of the water which it can hold against gravity.

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 1991 to 2020. 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 by 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 (for example, 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).

7.2 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

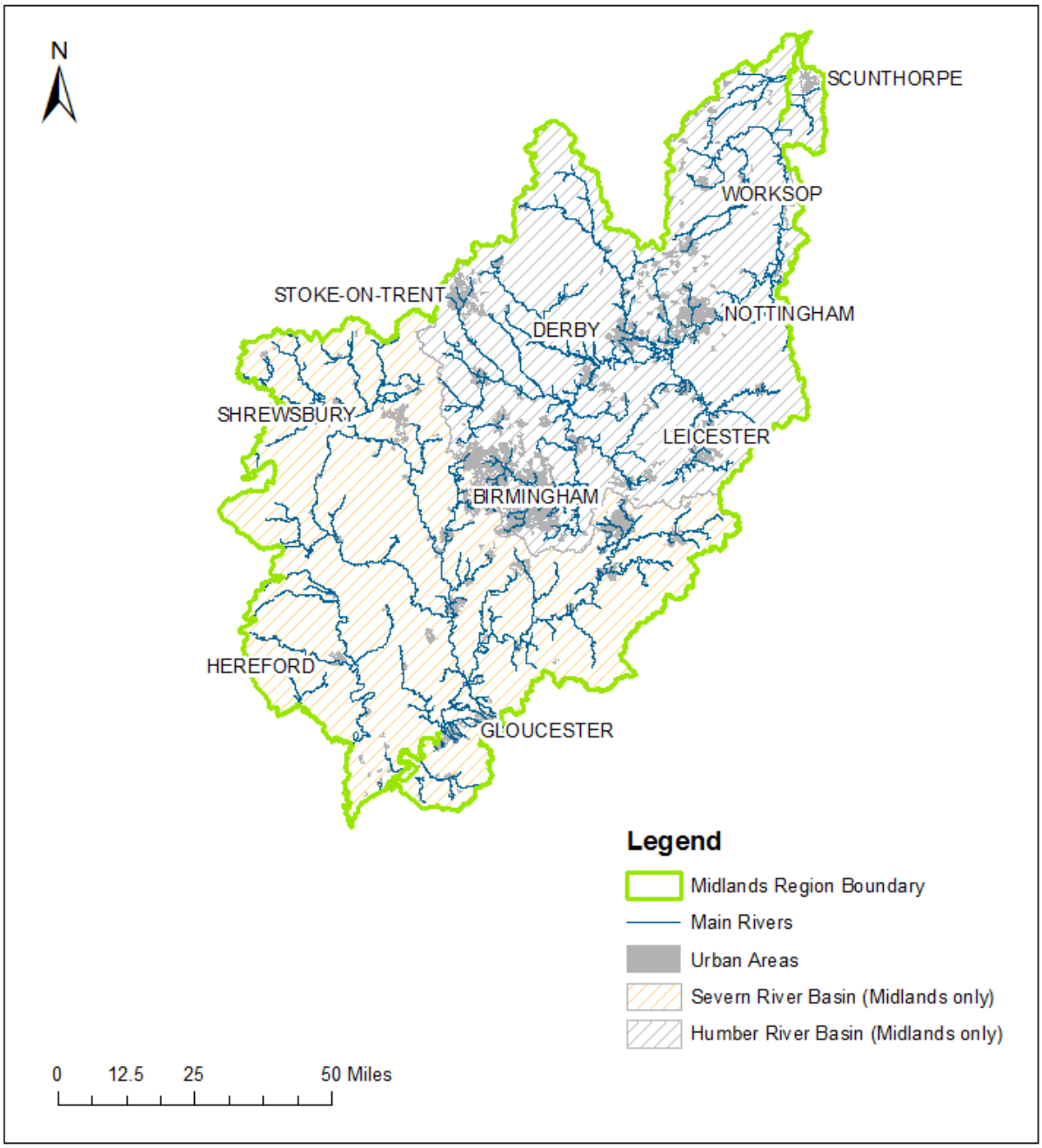
Value likely to fall within this band 8% of the time.

Exceptionally low

Value likely to fall within this band 5% of the time.

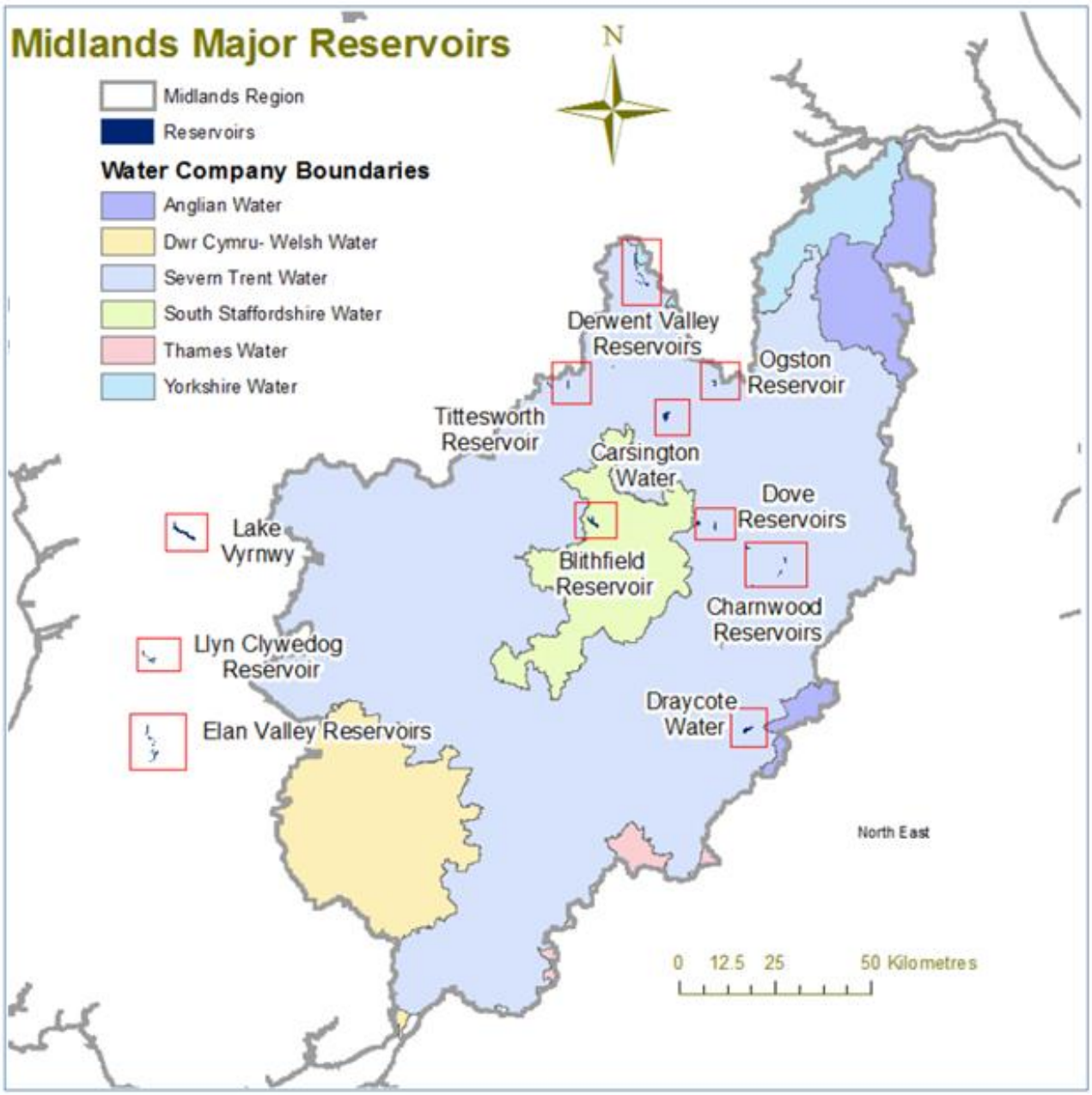
7.3 Midlands regional coverage

Figure 7.1: The Midlands regional boundary and the hydrological boundaries of the River Severn and River Trent.



7.4 Midlands major reservoirs

Figure 7.2: Location of major reservoirs in the Midlands.



8 Appendices

8.1 Water abstraction licence restrictions table

Area	Rivers and stations restricted
East Midlands	River Torne at Auckley River Ryton at Blyth River Devon at Wensor Bridge
West Midlands	River Arrow at Broom River Avon at Evesham River Dene at Wellesbourne River Stour at Wimpstone Glynch Brook at Bromserrow River Leadon at Wedderburn Bridge River Mease at Tibberton River Perry at Yeaton River Roden at Rodington River Strine at Crudgington River Tern at Ternhill on Tern River Tern at Walcot River Sow at Great Bridgford River Blythe at Whitacre Dick Brook at Dowles Brook at Oak Cottage Mor Brook at Dowles Brook at Oak Cottage

Area	Rivers and stations restricted
	River Salwarpe at Hartford Hill River Stour at Puxton River Garren at Marstow Mill River Arrow at Titley Mill River Frome at Yarkhill

8.2 Rainfall table

Hydrological area	Oct 2025 rainfall % of long term average 1991 to 2020	Oct 2025 band	Aug 2025 to October cumulative band	May 2025 to October cumulative band	Nov 2024 to October cumulative band
Avon To Evesham	74	Normal	Below normal	Exceptionally low	Exceptionally low
Derwent (Midlands)	110	Normal	Normal	Normal	Below normal
Dove	112	Normal	Normal	Normal	Below normal
Lower Severn Estuary	84	Normal	Normal	Notably low	Notably low
Lower Trent	89	Normal	Normal	Below normal	Below normal
Lower Wye	80	Normal	Normal	Notably low	Notably low

Hydrological area	Oct 2025 rainfall % of long term average 1991 to 2020	Oct 2025 band	Aug 2025 to October cumulative band	May 2025 to October cumulative band	Nov 2024 to October cumulative band
Mid Severn	79	Normal	Normal	Notably low	Notably low
Shropshire Plains	68	Below Normal	Normal	Below normal	Below normal
Soar	79	Normal	Below normal	Notably low	Notably low
Tame	85	Normal	Below normal	Notably low	Notably low
Upper Trent	90	Normal	Normal	Below normal	Below normal
Welsh Mountains	94	Normal	Normal	Normal	Normal

8.3 River flows table

Site name	River	Catchment	Oct 2025 band	Sep 2025 band
Auckley	Torne	Torne	Below normal	Normal
Bewdley	Severn	Severn Lower Mid	Normal	Above normal
Butts Bridge	Lugg	Lugg	Normal	Below normal
Clifton Hall	River Mease	Mease	Below normal	Normal
Deerhurst	Severn	Severn Lower	Normal	Above normal
Derby St. Marys	Derwent	Derwent Der to Markeaton confl.	Normal	Below normal
Ebley Mill	Frome (Gloucs.)	Frome Gloucs.	Notably low	Notably low
Evesham	Avon (Midlands)	Avon Warwks Lower	Normal	Normal
Great Bridgford	Sow	Sow Upper	Notably low	Normal
Kegworth	Soar	Soar to Kingston Brook confl.	Below normal	Normal
Llanyblodwel	Tanat	Severn Upper River Tanat	Normal	Above normal
Marston On Dove	Dove (Midlands)	Dove Derb to Hilton Br confl.	Normal	Normal

Site name	River	Catchment	Oct 2025 band	Sep 2025 band
North Muskham	Trent	Trent to Cromwell	Normal	Normal
Redbrook	Wye (Herefordshire)	Wye H and W d s Lugg	Normal	Normal
Stareton	Avon (Midlands)	Avon Warwks Upper	Normal	Normal
Tenbury	Teme	Teme	Normal	Normal
Walcot	Tern	Tern	Below normal	Normal
Wedderburn Bridge	Leadon	Leadon	No data	No data
Whatstandwell	Derwent	Derwent Derb to Amber confl.	Normal	Normal
Worksop	Ryton	Ryton Upper to Oldcoates Dyke	Normal	Normal
Yoxall	Trent	Trent to Tame Mease confl.	Normal	Normal

8.4 Groundwater table

Site name	Aquifer	End of Oct 2025 band	End of Sep 2025 band
Anthonys Cross	Severn Vale Permo Triassic Sandstone	Below normal	Normal
Coxmoor	Permo Triassic Sandstone	Above normal	Above normal
Crossley Hill	Permo Triassic Sandstone	Above normal	Above normal
Four Crosses	Permo Triassic Sandstone	Normal	Normal
Ram Hall, Meriden	Permo Carboniferous Sandstones and Mudstones	Normal	Normal
Rider Point Via Gellia	Carboniferous Limestone	Above normal	Normal
Southards Lane, Bolsover	Magnesian Limestone	Notably low	Notably low
St Mary's Church, Shrawley	Triassic Sandstone	Normal	Normal
Weir Farm	Bridgnorth Sandstone Formation	Above normal	Above normal