Monthly water situation report: North-west England

1 Summary – February 2026

Rainfall for north-west England during February was classed as normal, having received 111% of the long-term average (LTA). Soil moisture deficit (SMD) has risen slightly from the near total saturation at the end of January. River flows have increased in response to the consistent rainfall and all are now classed between normal and notably high. Total reservoir stocks declined slightly at first before recovering to a level higher than the end of January and are now higher than average for the time of year.

1.1 Rainfall

During February north-west England saw regular light rainfall with some heavier showers dispersed throughout the month. The cumulative rainfall for north-west England for February was classed as normal, at 111% of the LTA. Cumbria observed 101% of the LTA classed as normal. Lancashire observed 109% of the LTA classed as above normal. Greater Manchester, Merseyside and Cheshire (GMC) observed 143% of the LTA classed as notably high.

For February hydrological areas across north-west England recorded rainfall classed between normal and notably high, the highest rainfall, (in terms of LTA) was recorded in the Cheshire Rivers Group hydrological area with 158% of the LTA classed as notably high. The lowest rainfall was observed in the Eden with 91% of the LTA.

The 3-month cumulative rainfall period ending in February had rainfall classed between normal and notably high, showing a similar distribution to February with the higher rainfall being seen in Cheshire Rivers Group and across GMC. Higher rainfall was also seen in West Cumbria specifically the Esk(Cumbria) while rainfall in Lancashire and the Eden was classed as normal.

The 6-month cumulative rainfall period ending in February shows much higher rainfall with all but two hydrological areas being classed as exceptionally high. The highest rainfall was observed in Cheshire Rivers Group and the lowest in the Eden and Ribble these hydrological areas were still classed as notably high. For north-west England this was the seventh wettest 6-month cumulative rainfall period ending in February since 1871 and the wettest since 1871 for the Esk (Cumbria).

The 12-month cumulative rainfall period ending in February shows rainfall classed between normal and exceptionally high, CLA being much wetter with all hydrological areas across GMC being classed as normal. The highest cumulative rainfall was observed in the Kent and the lowest in the Mersey and Irwell and the Ribble.

1.2 Soil moisture deficit and recharge

By the start of March SMD levels increased across the whole north-west England compared to the near total saturation at the beginning of February. Due to the consistent rainfall, SMD in most areas remains slightly lower than the LTA, all falling within +/-5mm of the LTA.

1.3 River flows

In response to the consistent rainfall, February average river flows for north-west England have increased compared to January and were classed between normal and notably high. Higher river flows (in terms of LTA) were observed across GMC matching the spatial distribution seen in February's rainfall.

The highest average flow (in terms of LTA) was observed on the river Weaver at Ashbrook with 186% classed as notably high and the lowest was on the river Derwent at Seaton Mill with 84% of the LTA classed as normal. For the other 23 indicator sites reported this month; 3 were classed as notably high, 7 were classed as above normal and 13 were classed as normal.

1.4 Groundwater levels

Groundwater levels across north-west England at the end of February were classed between below normal and exceptionally high. Groundwater levels decreased at Bruntwood hall from above normal to normal and increased at Great Musgrave from normal to above normal.

All other groundwater indicator sites remained the same classification at:

- Brown Bank Lay-By, classed as normal
- Furness Abbey, classed as notably high
- Lea Lane, classed as normal
- Primrose Hill, classed as normal
- Priors Heyes, classed as exceptionally high
- Skirwith, classed as normal
- Richmond Park, classed as exceptionally high
- Victoria road, classed as below normal

Please note that levels at Priors Heyes remain high compared to historic levels because the aquifer is recovering from the effects of historically high abstractions.

1.5 Reservoir stocks

Total reservoir stocks for north-west England increased from 90% at the end of January to 93% at the start of March. This is slightly higher than the average of 92% at this time of year and higher than last year when stocks were 87%.

At the start of March, reservoir stock (in terms of percentage) was highest at Lake Vyrnwy at 100% full and lowest at Longdendale at 76% full.

The combined storage at Haweswater and Thirlmere was at 97% this is higher than the average of 91% at this time of year and higher than last year when combined stocks were 82%.

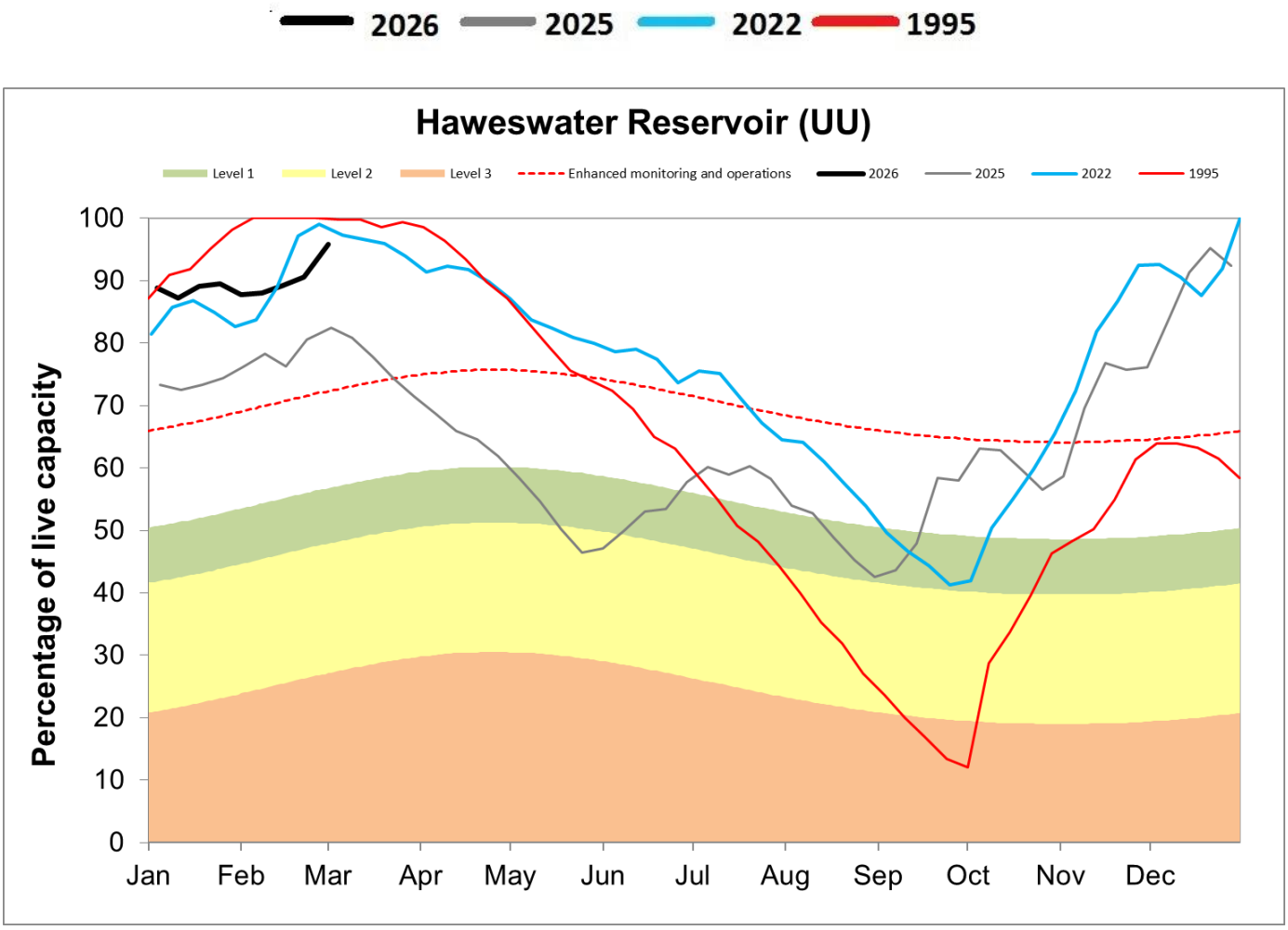
Reservoirs kept low for maintenance include parts of the:

- Longridge System (Ribble Reservoir Supply District) – Alston No.1, Alston No.2, Spade Mill No.1, and Spade Mill No.2
- Rivington System (Rivington Reservoir Supply District) – Anglezarke, High Bullough, and Yarrow
- Longdendale System (Longdendale Reservoir Supply District) – Audenshaw No.1, Torside, and Woodhead
- Barnacre Group (Ribble Reservoir Supply District) – Barnacre North, and Barnacre South
- Cowpe System (Pennines West Reservoir Supply District) – Cragg
- Cowm System (Longdendale Reservoir Supply District) – Cowm
- Poaka Beck System (Lakes Reservoir Supply District) – Harlock
- Piethorne Valley System (Pennines East Reservoir Supply District) – Kitcliffe
- Ogden (Barley) System (Ribble Reservoir Supply District) – Ogden (Barley) Lower, and Ogden (Barley) Upper
- Ridgegate System (Stockport Reservoir Supply District) – Ridgegate
- Stocks System (Ribble Reservoir Supply District) – Stocks

1.6 Water abstraction restrictions and environmental impacts

No water abstraction restrictions or environmental incidents related to dry weather occurred across north-west England during February.

Figure 1.5: Storage in Haweswater Reservoir, including the drought levels for the reservoir and storage for the current year (2026) and representative years: 1995, 2022 and 2025 (*Source: United Utilities* (UU)).

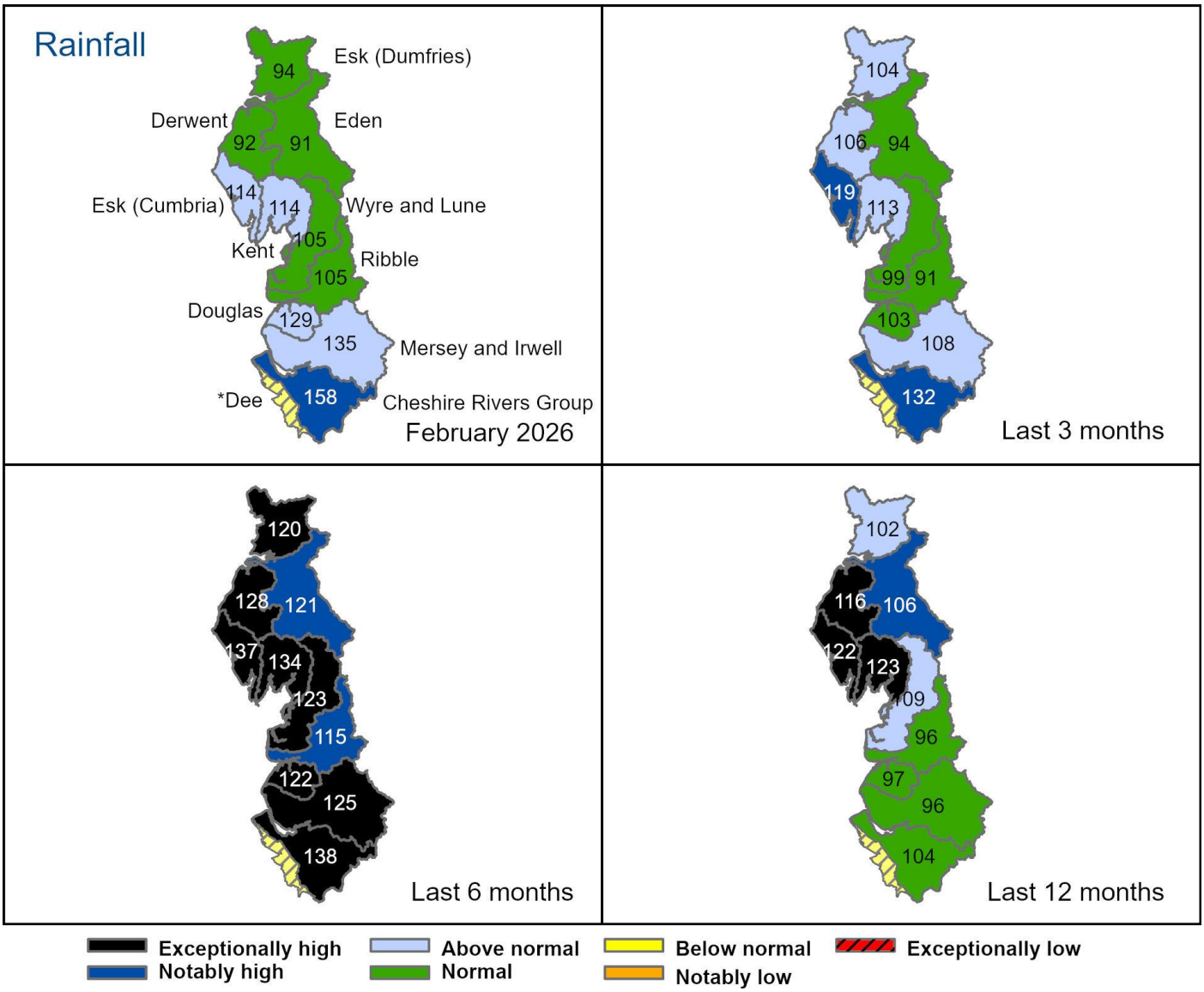


Author: Cumbria and Lancashire Hydrology Team, hydrology.CMBLNC@environment-agency.gov.uk

2 Rainfall

2.1 Rainfall map

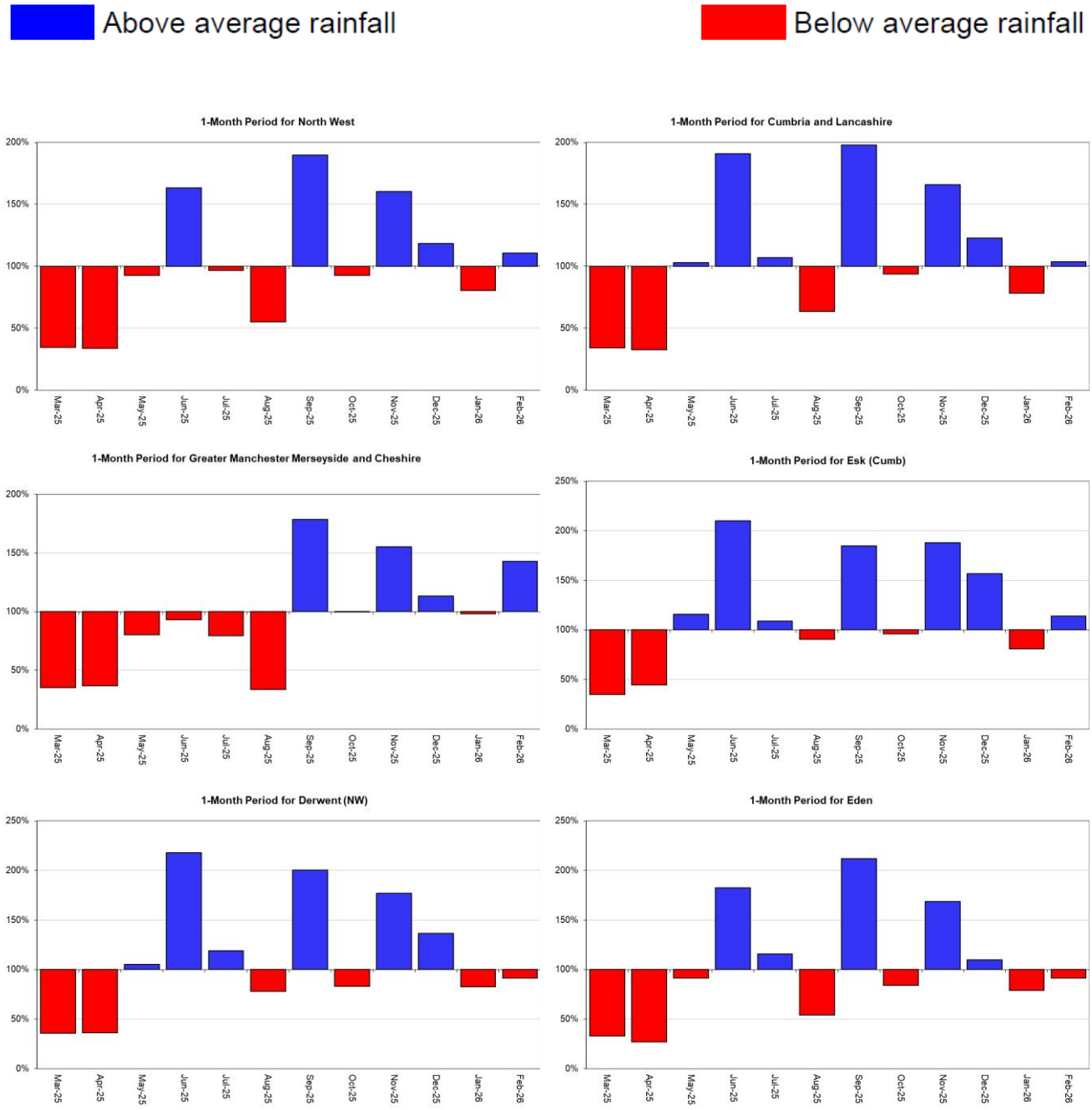
Figure 2.1: Total rainfall (as a percentage of the 1991 to 2020 long term average) for hydrological areas for the current month (up to 28 February 2026), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.

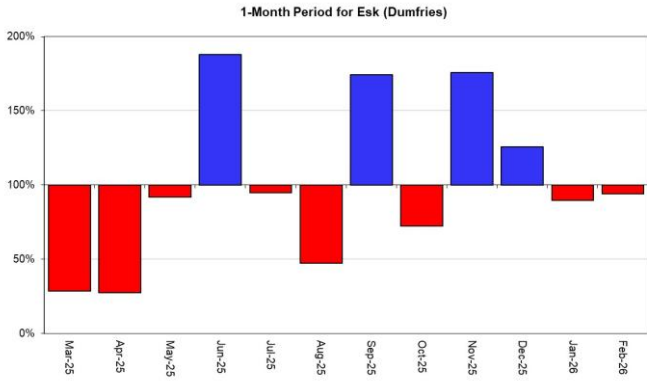


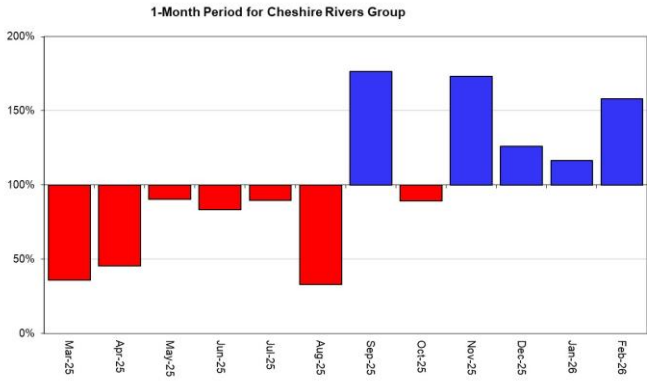
Rainfall data since January 2025, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2026).

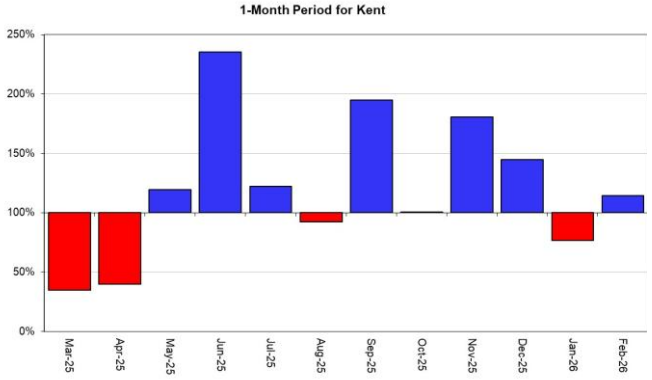
2.2 Rainfall charts

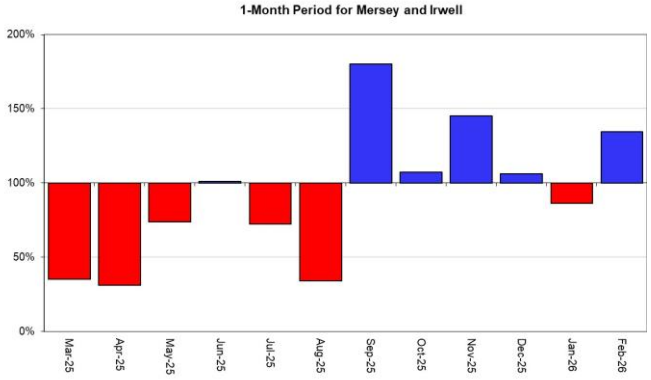
Figure 2.2: Monthly rainfall totals for the past 12 months expressed as a percentage of the 1991 to 2020 long term average for North-west England and its hydrological areas.

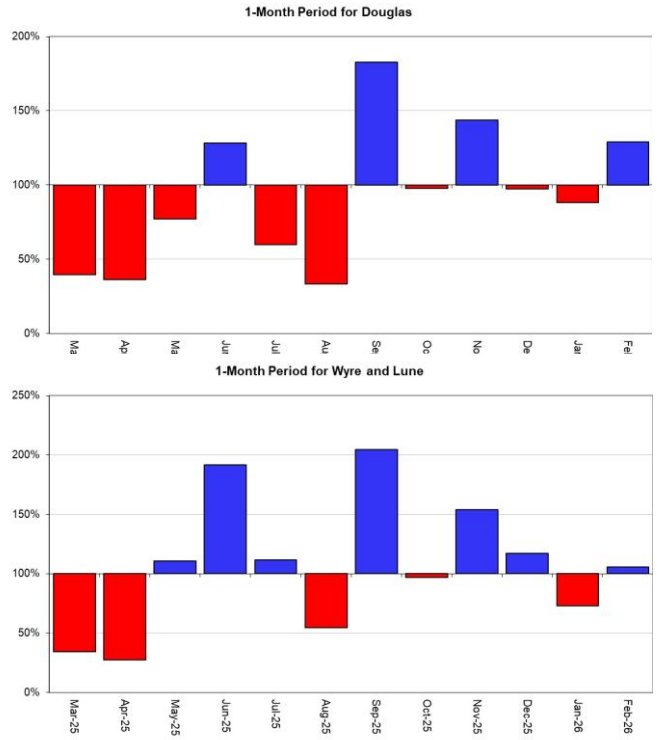


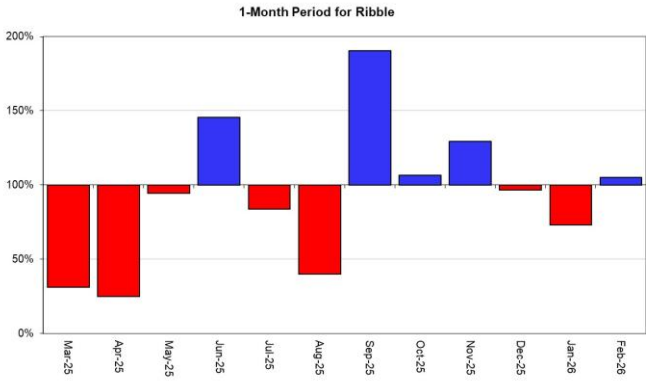

1-Month Period for Esk (Dumfries)
200%
150%
100%
50%
0%
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26


1-Month Period for Cheshire Rivers Group
200%
150%
100%
50%
0%
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26


1-Month Period for Kent
250%
200%
150%
100%
50%
0%
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26


1-Month Period for Mersey and Irwell
200%
150%
100%
50%
0%
Mar-25
Apr-25
May-25
Jun-25
Jul-25
Aug-25
Sep-25
Oct-25
Nov-25
Dec-25
Jan-26
Feb-26



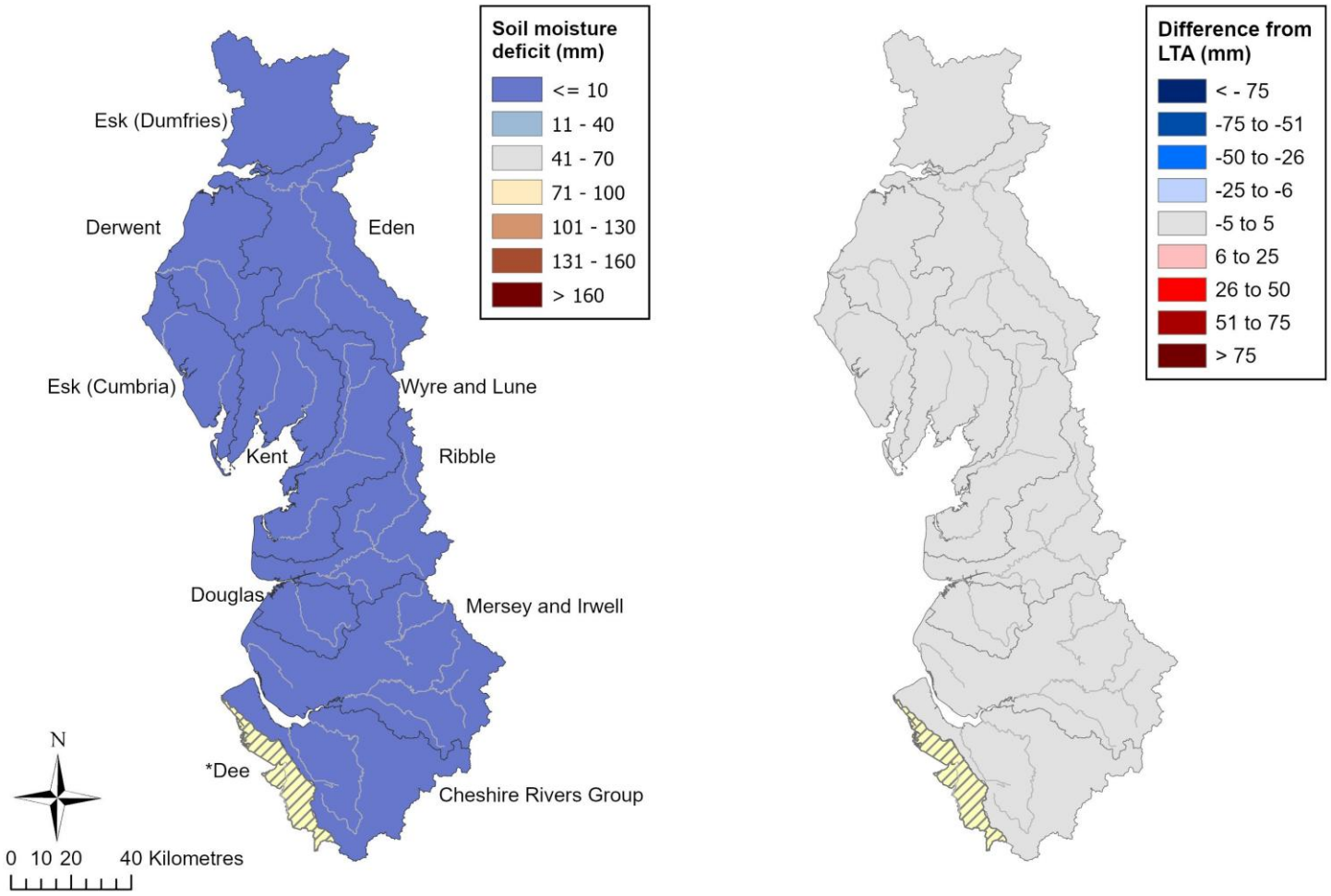


Rainfall data since January 2025, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded rainfall dataset derived from registered rain gauges (Source: Met Office. Crown copyright, 2026).

3 Soil moisture deficit

3.1 Soil moisture deficit map

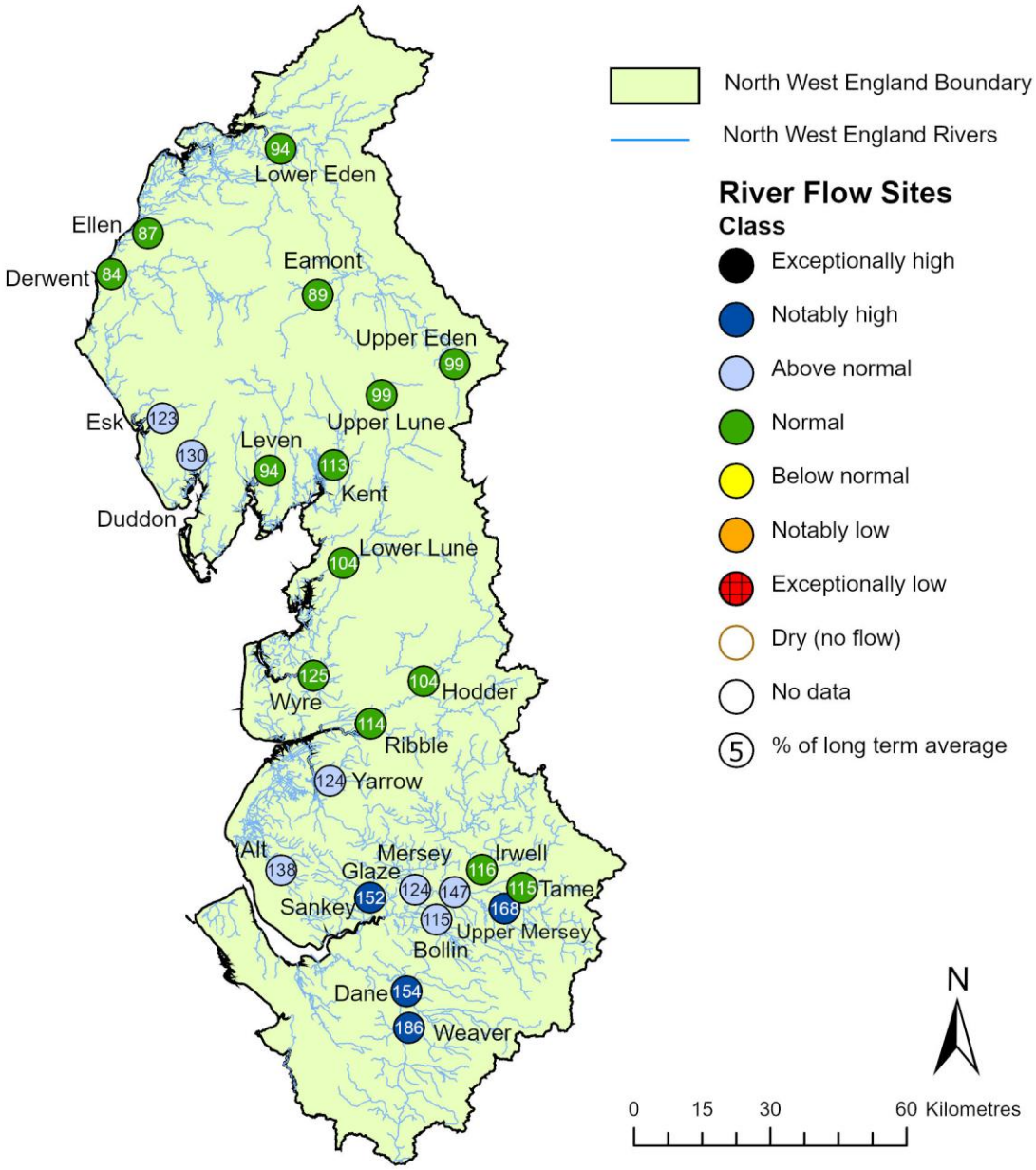
Figure 3.1: Soil moisture deficits for the week ending 30 April 2025. The map on the left shows actual soil moisture deficits (mm) and on the right shows the difference (mm) of the actual from the 1991 - 2020 long term average soil moisture deficits. MORECS data for real land use.



4 River flows

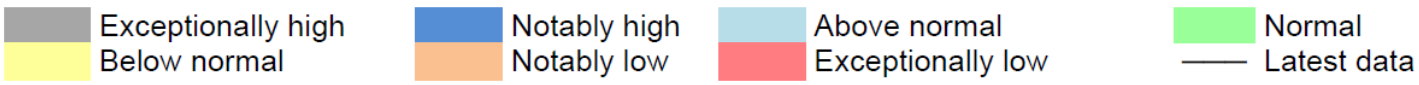
4.1 River flows map

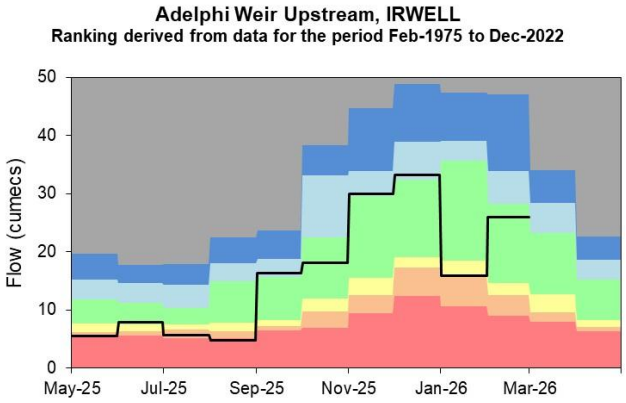
Figure 4.1: Monthly mean river flow for indicator sites for February 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic February monthly means. Table available in the appendices with detailed information.

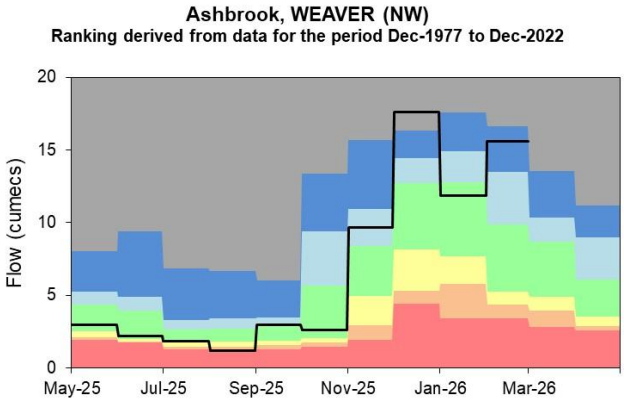


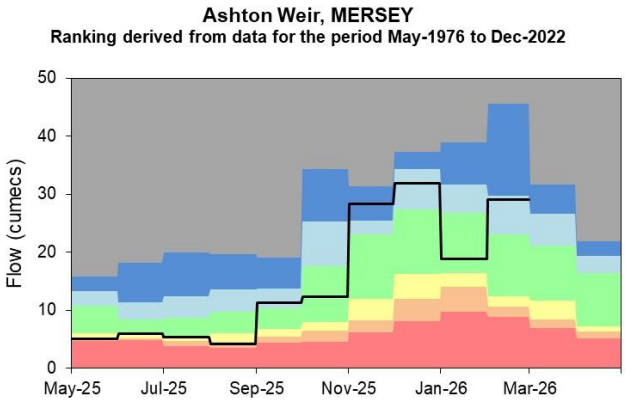
4.2 River flow charts

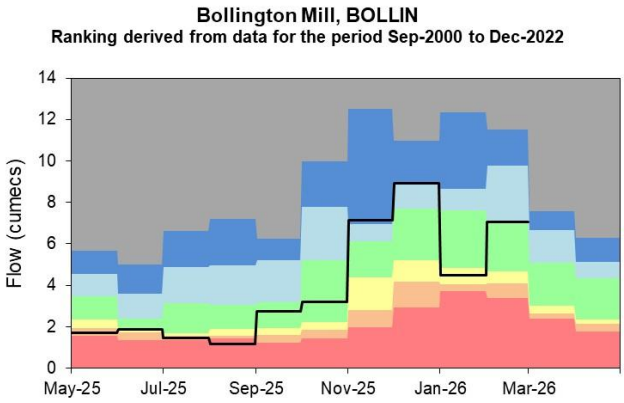
Figure 4.2: Monthly mean river flow for index sites over the past year, compared to an analysis of historic monthly mean flows.



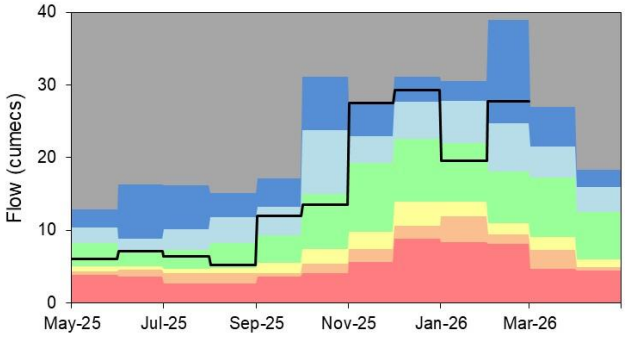




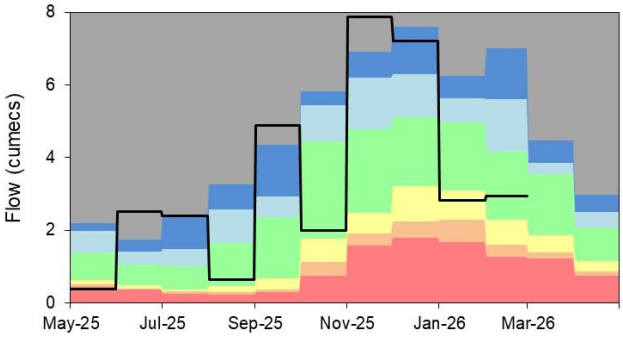




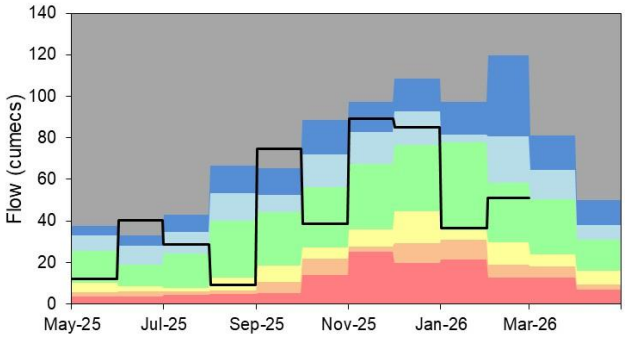
Brinksway, MERSEY
Ranking derived from data for the period Jan-1974 to Dec-2022



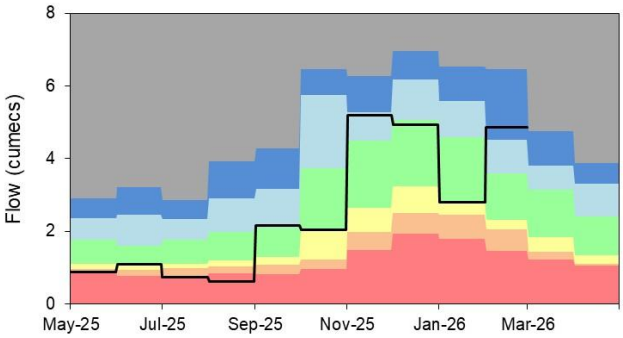
Bullgill, ELLEN
Ranking derived from data for the period Jan-1976 to Dec-2022



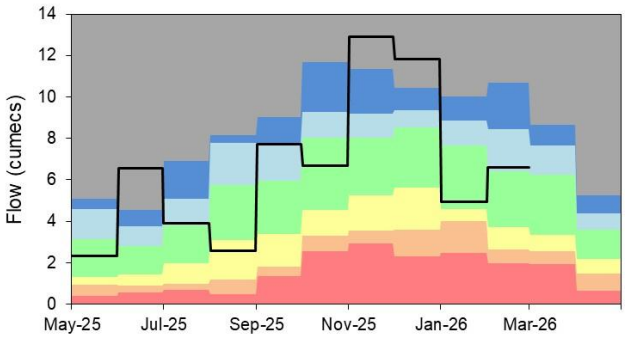
Caton, LUNE
Ranking derived from data for the period Jan-1959 to Dec-2022



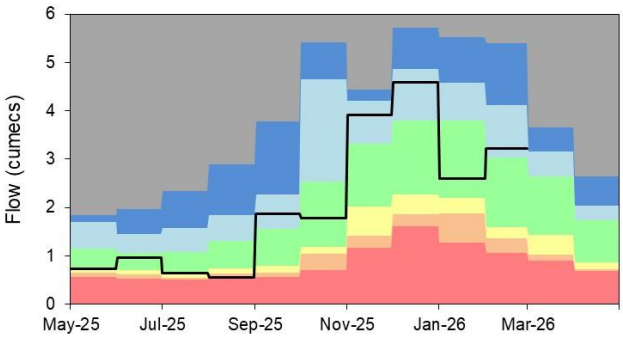
Causey Bridges, SANKEY
Ranking derived from data for the period Jan-1977 to Dec-2022



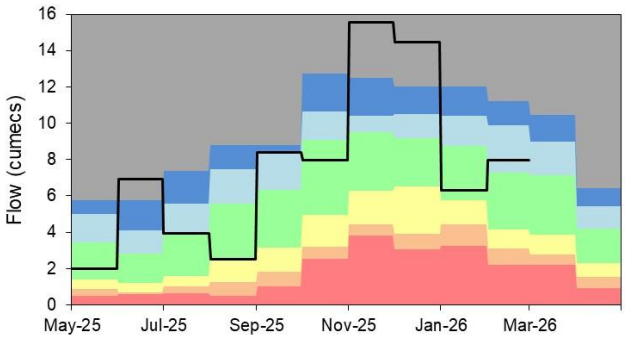
Cropple How, ESK (NW)
Ranking derived from data for the period Jan-1976 to Dec-2022



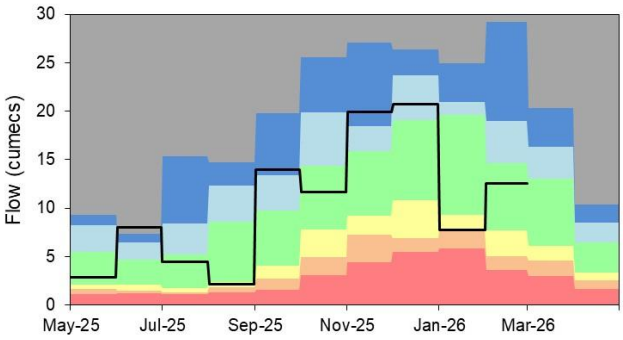
Croston, YARROW
Ranking derived from data for the period Jan-1976 to Dec-2022



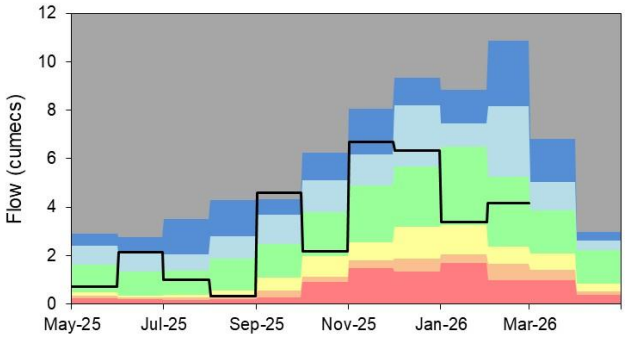
Duddon Hall, DUDDON
Ranking derived from data for the period Mar-1968 to Dec-2022



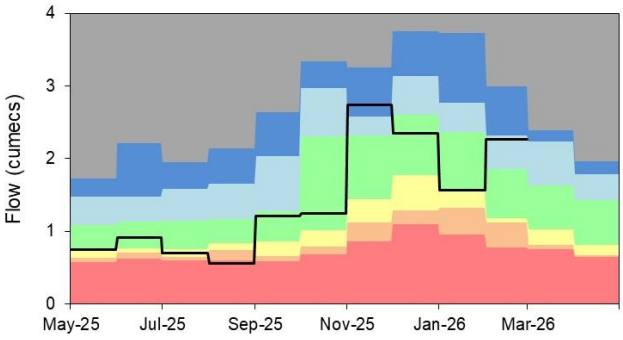
Hodder Place, HODDER
Ranking derived from data for the period Jan-1976 to Dec-2022



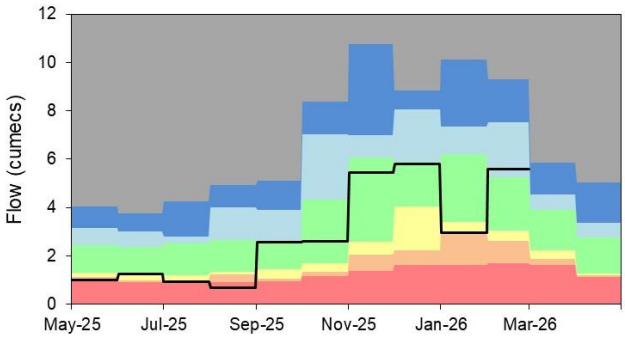
Kirkby Stephen, EDEN (NW)
Ranking derived from data for the period Oct-1971 to Dec-2022



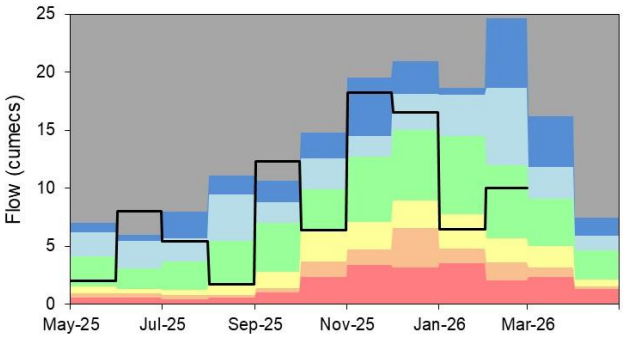
Kirkby, ALT
Ranking derived from data for the period Oct-1977 to Dec-2022



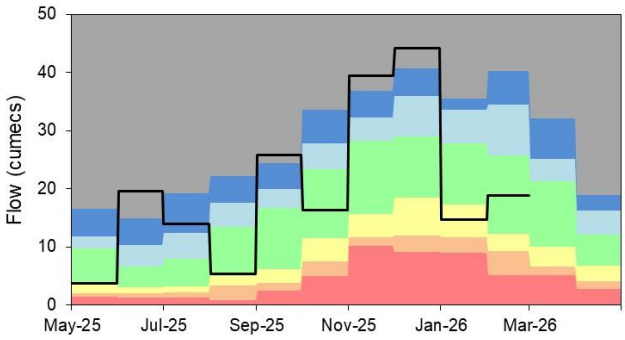
Little Woolden Hall Ultrasonic, GLAZE
Ranking derived from data for the period Jul-1995 to Dec-2022



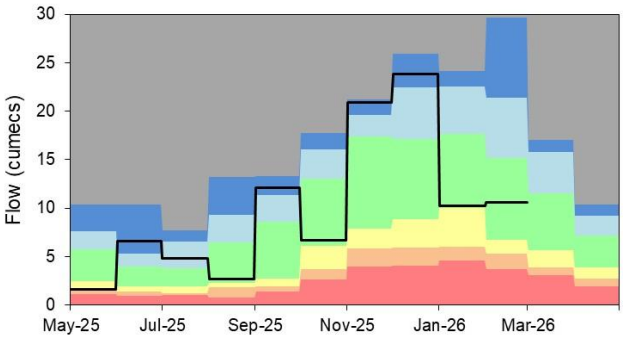
Lunes Bridge, LUNE
Ranking derived from data for the period Dec-1979 to Dec-2022



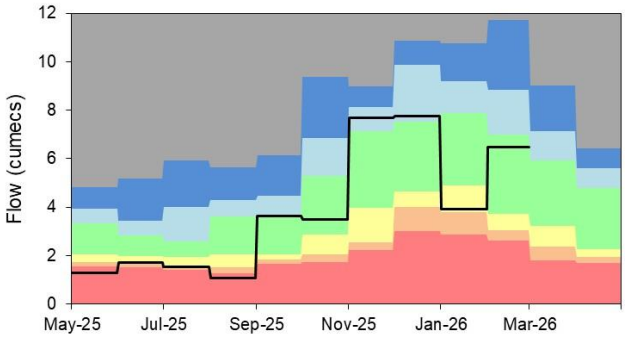
Newby Bridge FMS, LEVEN (NW)
Ranking derived from data for the period Jan-1972 to Dec-2022



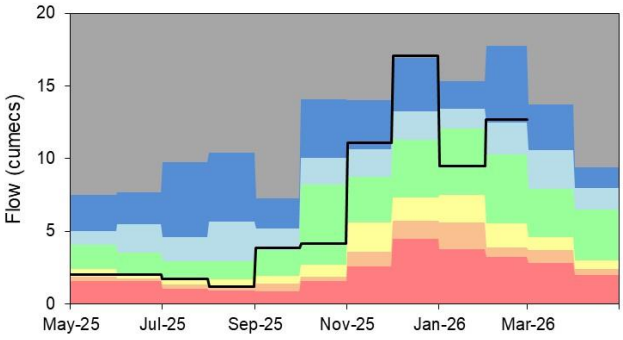
Pooley Bridge, EAMONT
Ranking derived from data for the period Jul-1970 to Dec-2022



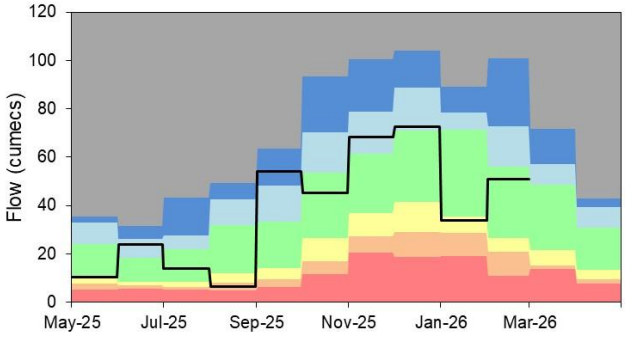
Portwood, TAME
Ranking derived from data for the period Jan-1976 to Dec-2022



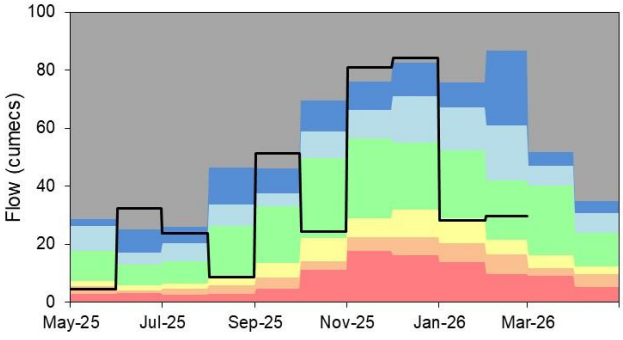
Rudheath, DANE
Ranking derived from data for the period Jan-1976 to Dec-2022

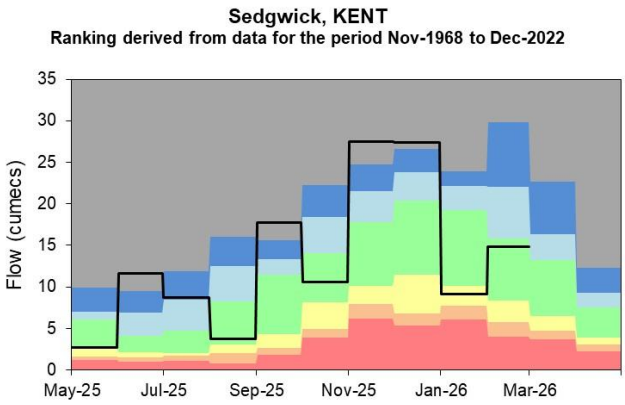


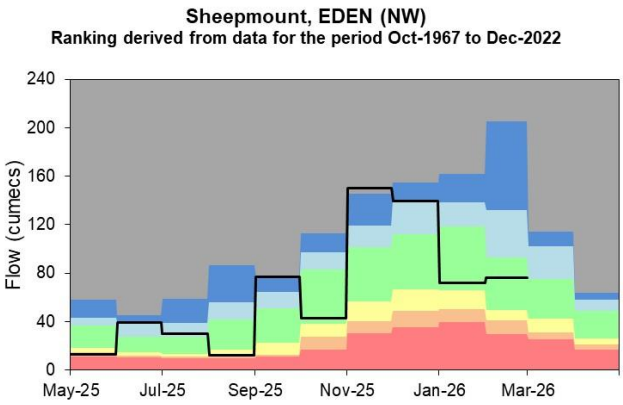
Samlesbury Pgs, RIBBLE (NW)
Ranking derived from data for the period May-1960 to Dec-2022

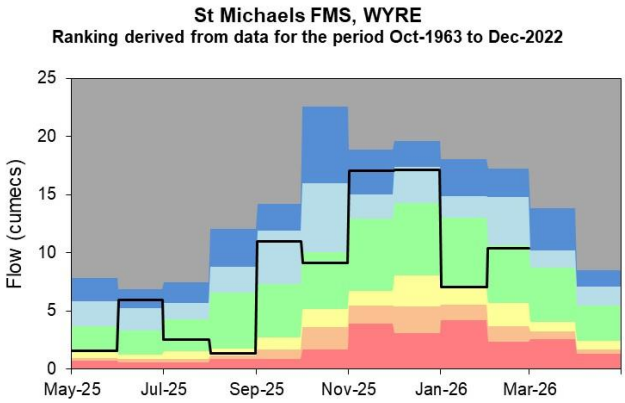


Seaton Mill, DERWENT (NW)
Ranking derived from data for the period Sep-1960 to Dec-2022







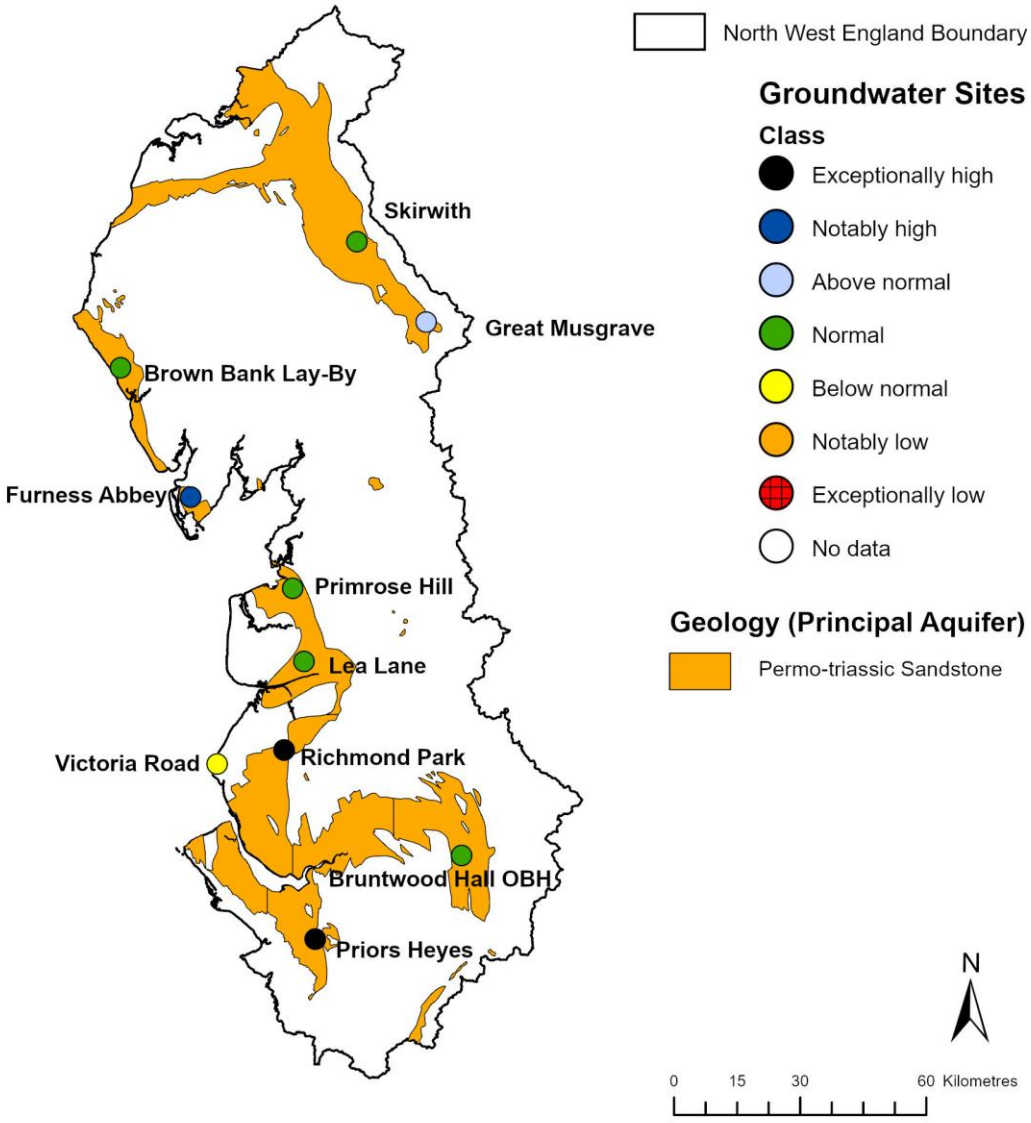


Source: Environment Agency.

5 Groundwater levels

5.1 Groundwater levels map

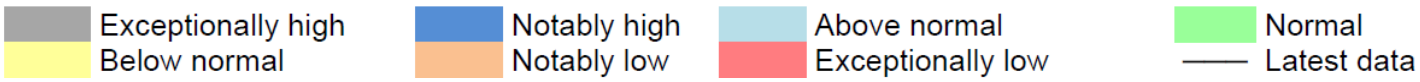
Figure 5.1: Groundwater levels for indicator sites at the end of February 2026, classed relative to an analysis of respective historic February levels. Table available in the appendices with detailed information. Please note Victoria Road Borehole sits within a superficial deposit as opposed to a bedrock aquifer. This is why the geology type is not marked on the map.



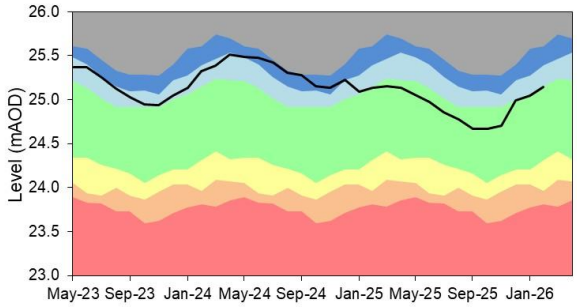
(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, AC0000807064, 2026.

5.2 Groundwater level charts

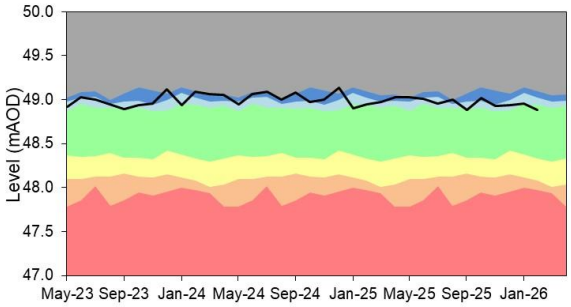
Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.



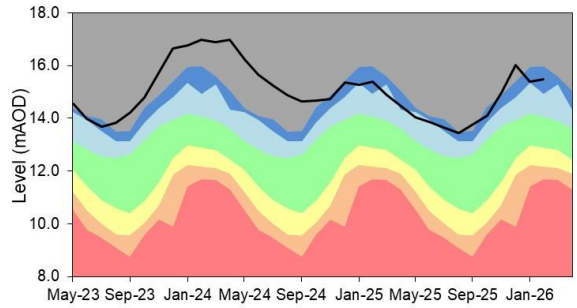
BROWN BANK LAY-BY
Ranking derived from data for the period May-1974 to Dec-2022



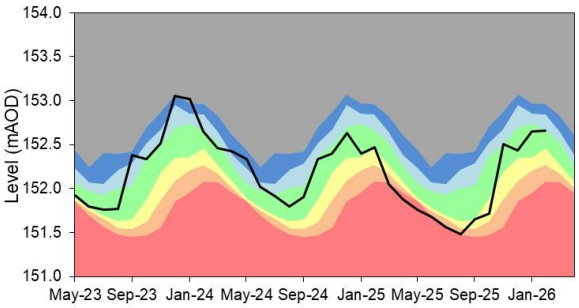
BRUNTWOOD HALL OBH
Ranking derived from data for the period Dec-1972 to Dec-2022



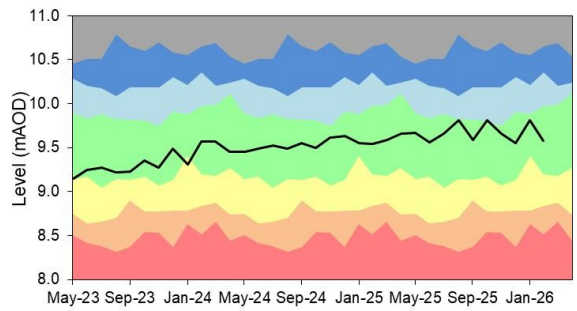
FURNESS ABBEY
Ranking derived from data for the period Oct-1972 to Dec-2022



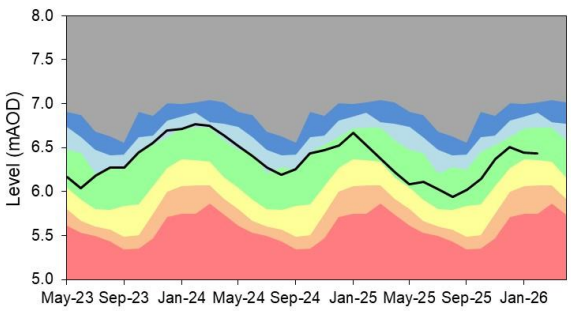
GREAT MUSGRAVE
Ranking derived from data for the period Aug-1976 to Dec-2022

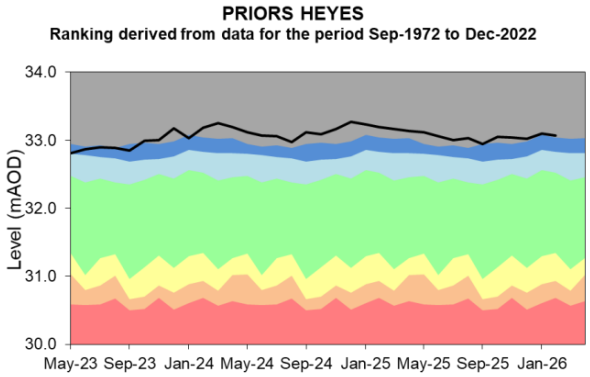


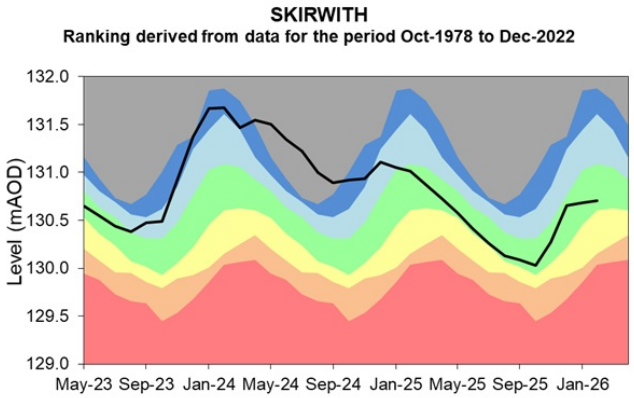
LEA LANE
Ranking derived from data for the period Apr-1973 to Dec-2022

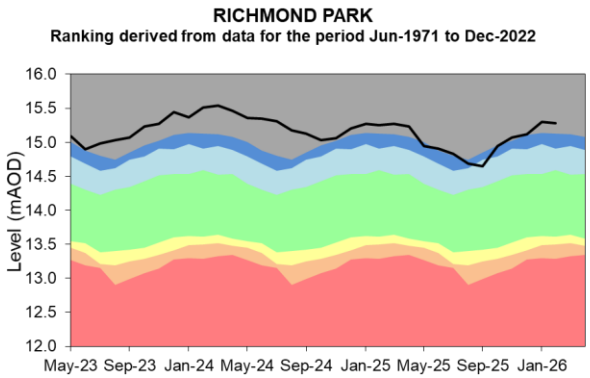


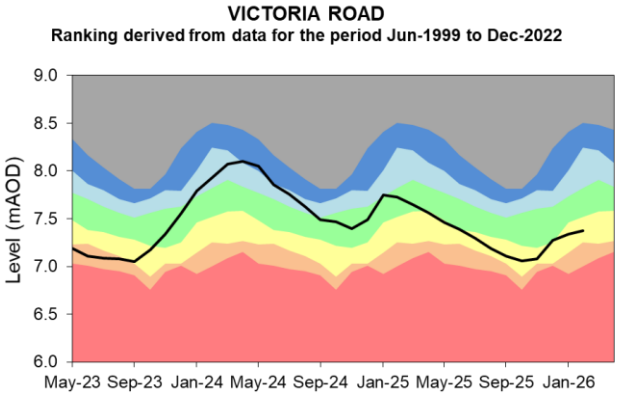
PRIMROSE HILL
Ranking derived from data for the period Jan-1969 to Dec-2022











Source: Environment Agency, 2026.

6 Reservoir stocks

Figure 6.1: The location of reservoirs that comprise the supply districts across North-west England and selected individual reservoirs.

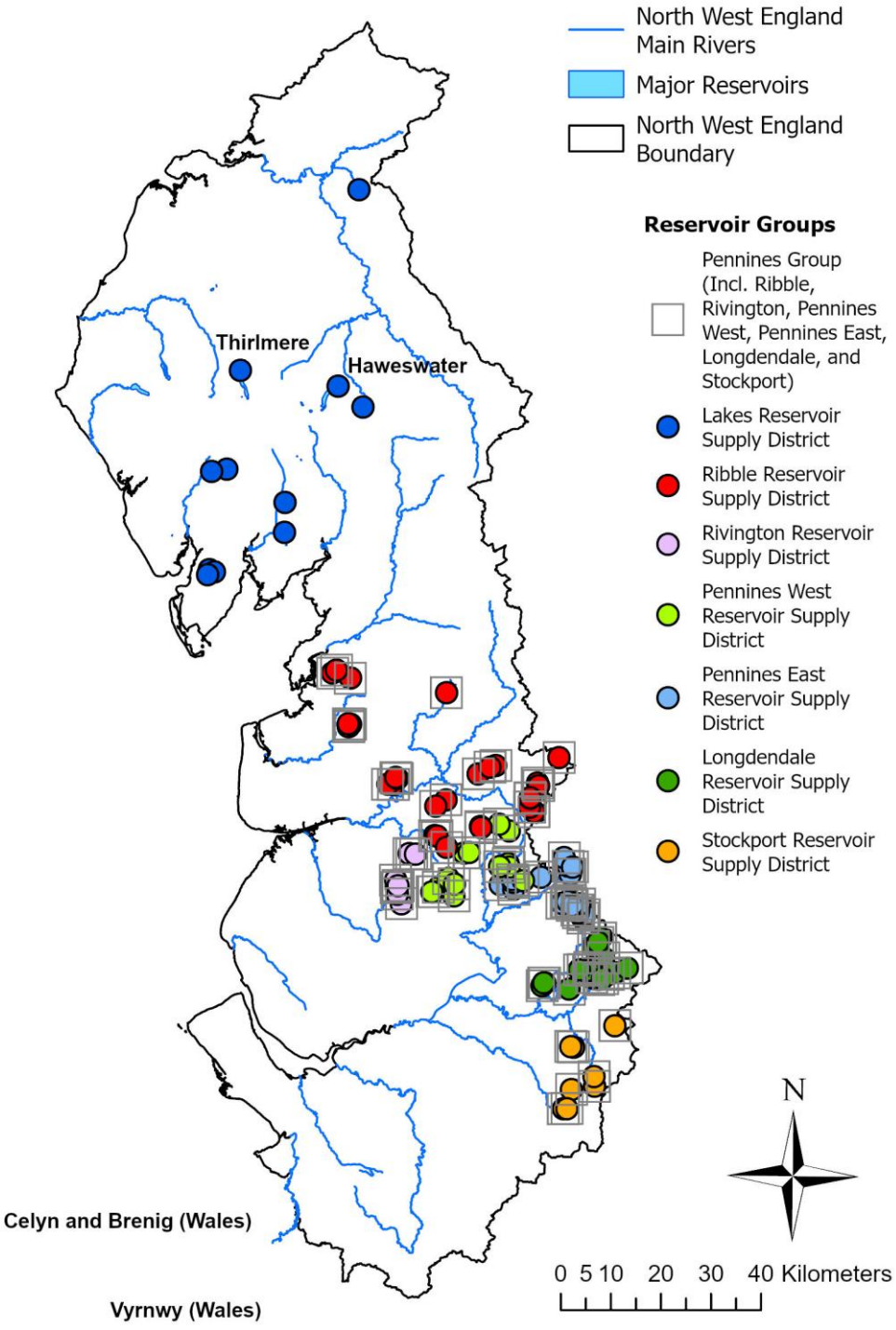
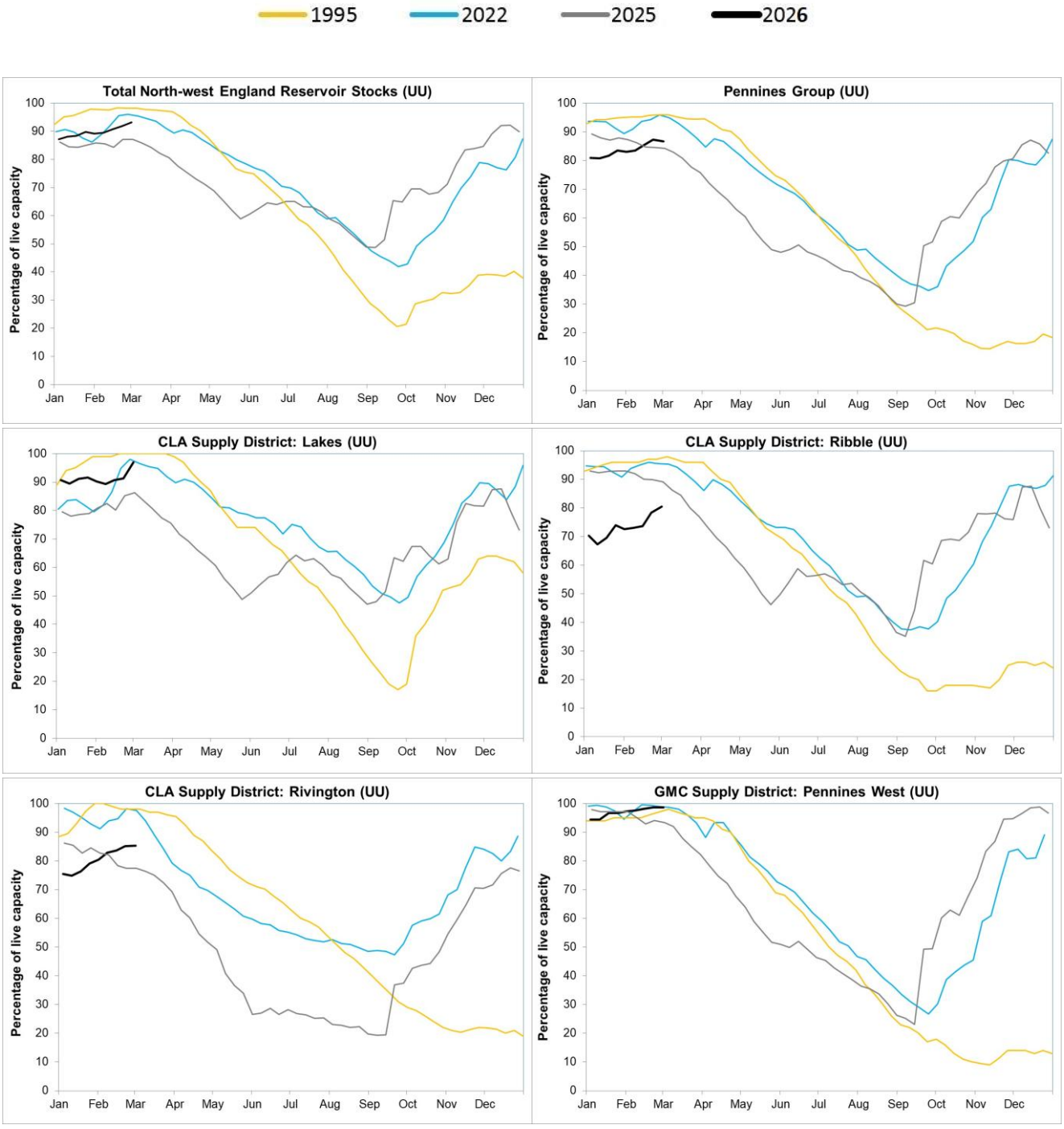
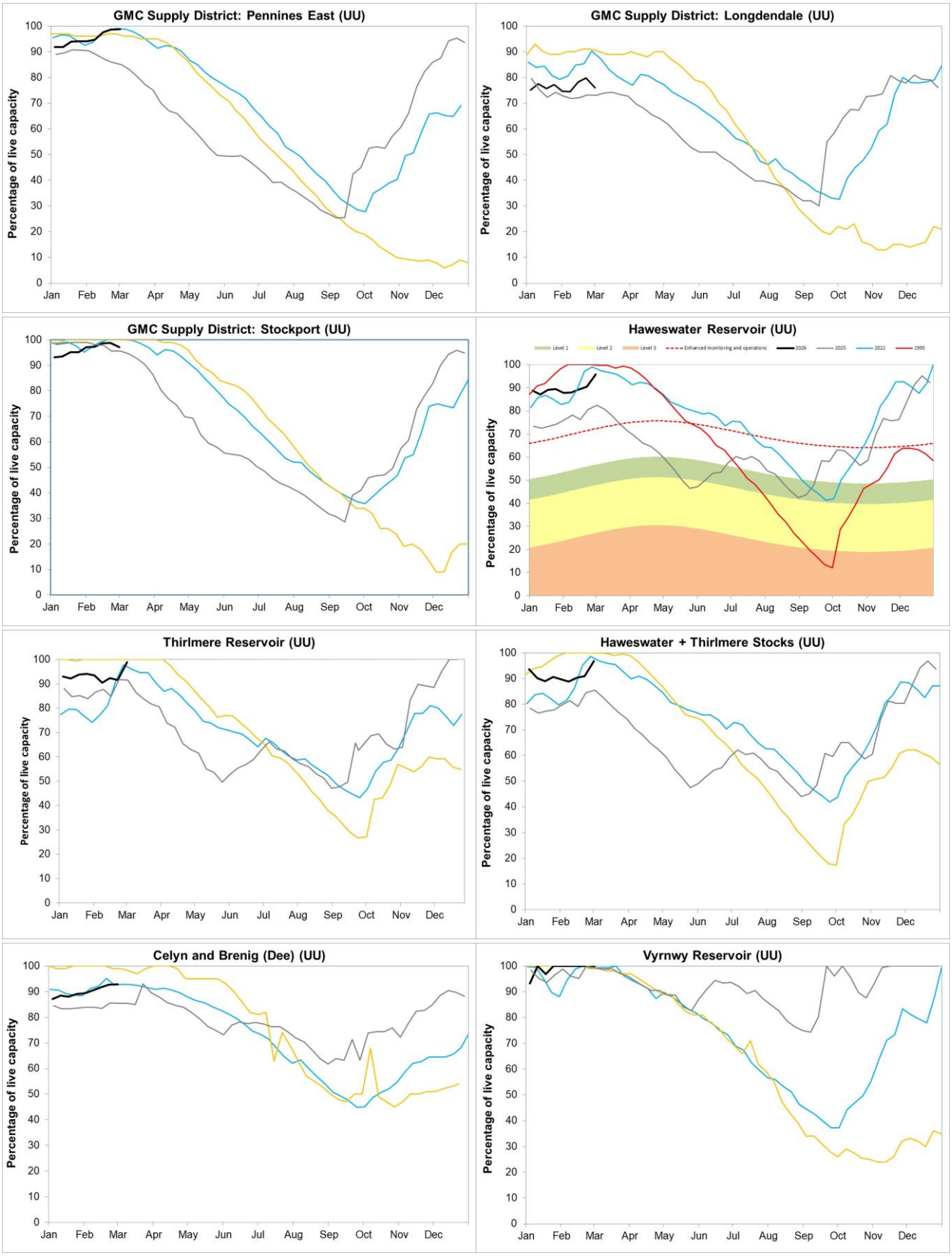


Figure 6.2: End of month reservoir stocks for supply districts across North-west England and selected individual reservoirs for current year (2026) and representative years: 1995, 2022 and 2025. Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length.





Source: (UU) United Utilities, (EA) The Environment Agency.

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).

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.

8 Appendices

8.1 Rainfall table

Hydrological area	Feb 2026 rainfall % of long term average 1991 to 2020	Feb 2026 band	Dec 2025 to February cumulative band	Sep 2025 to February cumulative band	Mar 2025 to February cumulative band
Cheshire Rivers Group	158	Notably High	Notably high	Exceptionally high	Normal
Derwent (NW)	92	Normal	Above normal	Exceptionally high	Exceptionally high
Douglas	129	Above Normal	Normal	Exceptionally high	Normal
Eden	91	Normal	Normal	Notably high	Notably high
Esk (Cumbria)	114	Above Normal	Notably high	Exceptionally high	Exceptionally high
Esk (Dumfries)	94	Normal	Above normal	Exceptionally high	Above normal
Kent	114	Above Normal	Above normal	Exceptionally high	Exceptionally high
Mersey And Irwell	135	Above Normal	Above normal	Exceptionally high	Normal
Ribble	105	Normal	Normal	Notably high	Normal
Wyre And Lune	105	Normal	Normal	Exceptionally high	Above normal

North West	111	Normal	Above normal	Exceptionally high	Above normal

8.2 River flows table

Site name	River	Catchment	Feb 2026 band	Jan 2026 band
Adelphi Weir Upstream	Irwell	Irwell (Croal to Irk)	Normal	Below normal
Ashbrook	Weaver (NW)	Weaver Upper	Notably high	Normal
Ashton Weir	Mersey	Mersey Non Tidal	Above normal	Normal
Bollington Mill	Bollin	Bollin	Above normal	Below normal
Brinksway	Mersey	Mersey Non Tidal	Notably high	Normal
Bullgill	Ellen	Ellen Lower	Normal	Below normal
Caton	Lune	Lune Lower Tidal	Normal	Normal
Causey Bridges	Sankey	Mersey Non Tidal	Notably high	Below normal
Cropple How	Esk (NW)	Esk (South West Lakes)	Above normal	Normal
Croston	Yarrow	Yarrow Lower	Above normal	Normal
Duddon Hall	Duddon	Duddon	Above normal	Normal
Hodder Place	Hodder	Hodder Lower	Normal	Below normal
Kirkby	Alt	Alt	Above normal	Normal

Kirkby Stephen	Eden (NW)	Eden Cumbria Upper	Normal	Normal
Little Woolden Hall Ultrasonic	Glaze	Glaze	Above normal	Notably low
Lunes Bridge	Lune	Lune Upper	Normal	Below normal
Newby Bridge Fms	Leven (NW)	Leven Cumbria	Normal	Below normal
Pooley Bridge	Eamont	Eamont	Normal	Normal
Portwood	Tame	Tame	Normal	Below normal
Rudheath	Dane	Dane	Notably high	Normal
Samlesbury Pgs	Ribble (NW)	Ribble Lower	Normal	Below normal
Seaton Mill	Derwent (NW)	Derwent Cumbria Lower	Normal	Below normal
Sedgwick	Kent	Levens Bridge	Normal	Below normal
Sheepmount	Eden (NW)	Eden Cumbria Lower	Normal	Normal
St Michaels Fms	Wyre	Brock	Normal	Normal

8.3 Groundwater table

Site name	Aquifer	End of Feb 2026 band	End of Jan 2026 band
Brown Bank Lay-by	West Cumbria Permo-triassic Sandstone	Normal	Normal
Bruntwood Hall Obh	East Cheshire Permo-triassic Sandstone	Normal	Above normal
Furness Abbey	Furness Permo-triassic Sandstone	Notably high	Notably high
Great Musgrave	Eden Valley And Carlisle Basin Permo-triassic Sandstone	Above normal	Normal
Lea Lane	Fylde Permo-triassic Sandstone	Normal	Normal
Priors Heyes	West Cheshire Permo-triassic Sandstone	Exceptionally high	Exceptionally high
Primrose Hill	Fylde Permo-triassic Sandstone	Normal	Normal
Richmond Park	Rufford Permo-triassic Sandstone	Exceptionally high	Exceptionally high

Skirwith	Eden Valley And Carlisle Basin Permo-triassic Sandstone	Normal	Normal
Victoria Road Entrance	West Lancashire Quarternary Sand And Gravel Superficial Deposits	Below normal	Below normal