Monthly water situation report: Yorkshire Area

1 Summary - January 2026

In January, Yorkshire had more rainfall than expected for the time of year which caused soils to be fully saturated by the second week. Most rivers began the month with low flows for January which then increased in response to rainfall in the latter part of the month. Groundwater levels rose in most aquifers. Reservoir stocks increased to above the long term average (LTA).

1.1 Rainfall

Overall, the amount of rainfall in Yorkshire in January was more than expected for the time of year. Monthly totals were above the LTA in all catchments, ranging from 111% of the LTA in the Ure to 181% of the LTA in the Hull. The first 5 days of January were dry in most catchments and then followed by frequent rainfall during the rest of the month.

In the Don and Rother catchments, after the first 5 days of the month being dry, there was a small event on days 7, 8 and 9. Rainfall amounts then reduced until days 20 and 21 after which daily totals became higher until month's end.

In the other Pennine catchments, there was a small rainfall event around day 11 and then rainfall totals peaked again on day 22.

In the north-east of Yorkshire rainfall peaked on days 11, 21 and 27, with little or no rainfall between these dates. Most of the rainfall occurred within the latter half of the month.

In the Hull catchment, there was persistent rainfall throughout the whole month.

It was the wettest 3-month period ending in January since 1871 in the Don catchment and the second wettest in the Hull. However, the exceptionally wet November 2025 had a large influence on these statistics.

1.2 Soil moisture deficit and recharge

Across the whole of Yorkshire, soils began the month wet and were completely saturated by the second week. They remained so for the rest of the month.

1.3 River flows

Daily mean flows began the month low for the time of year. Between days 4 and 10, many Pennine catchments had occasions of exceptionally low daily mean flows for the time of year. This pattern remained until day 12 when flows increased in response to the rain that fell on

day 11. Most rivers then remained normal for the time of year until day 22 when they rose a second time and became high for the time of year.

Monthly mean river flows ranged from 64% of the LTA in the River Calder to 188% of the LTA in the River Hull.

The exception to the general pattern was the chalk-fed West Beck. Daily mean flows within this catchment began January exceptionally high for the time of year and gradually declined for much of the month despite reacting to rainfall on days 11 and 12. On day 27 flows began to increase again and ended the month notably high for the time of year.

1.4 Groundwater levels

Magnesian Limestone

The groundwater level within the Magnesian Limestone increased at Brick House Farm and was above normal for the time of year.

Millstone Grit

The groundwater level within the Millstone Grit increased at Hill Top Farm and became notably high for the time of year. The groundwater level at this observation borehole may be affected by its use for water abstraction by means of a pump.

Sherwood Sandstone

The groundwater level within the Sherwood Sandstone increased at Great Ouseburn and became notably high for the time of year. The groundwater level increased at Riccall Approach Farm and was normal for the time of year.

Corallian Limestone

The groundwater level within the Corallian Limestone increased at Sproxton and was notably high for the time of year.

Chalk

The groundwater level decreased at Wetwang and was above normal for the time of year. The groundwater level increased at Dalton Estate Well and was above normal for the time of year.

1.5 Reservoir stocks

Reservoir stocks gradually increased over the course of the month, at an average rate of 1.6% per week. At the end of January, stocks were around 96.2%, which was 3.7% above the LTA.

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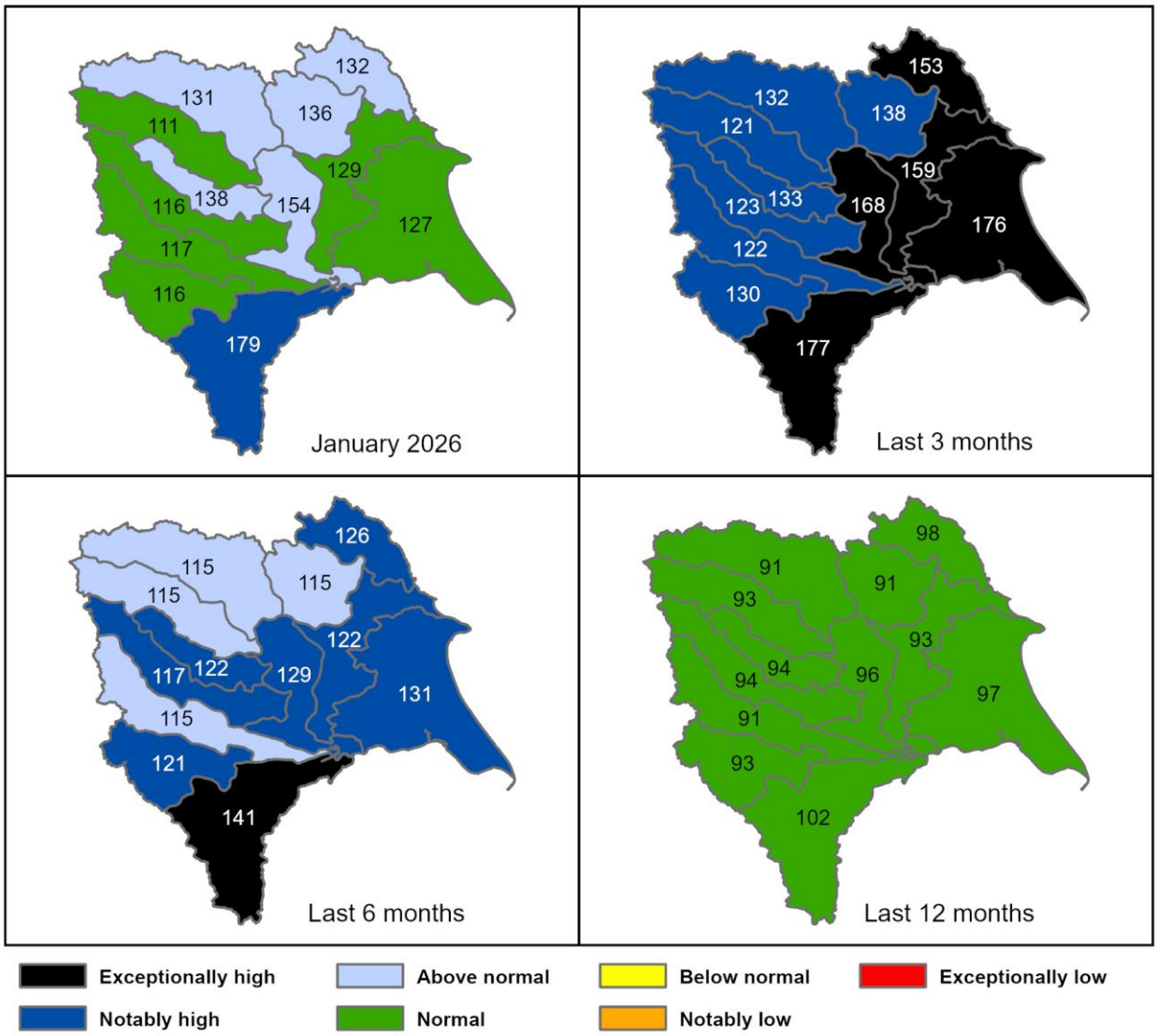
2 Rainfall

2.1 Rainfall map

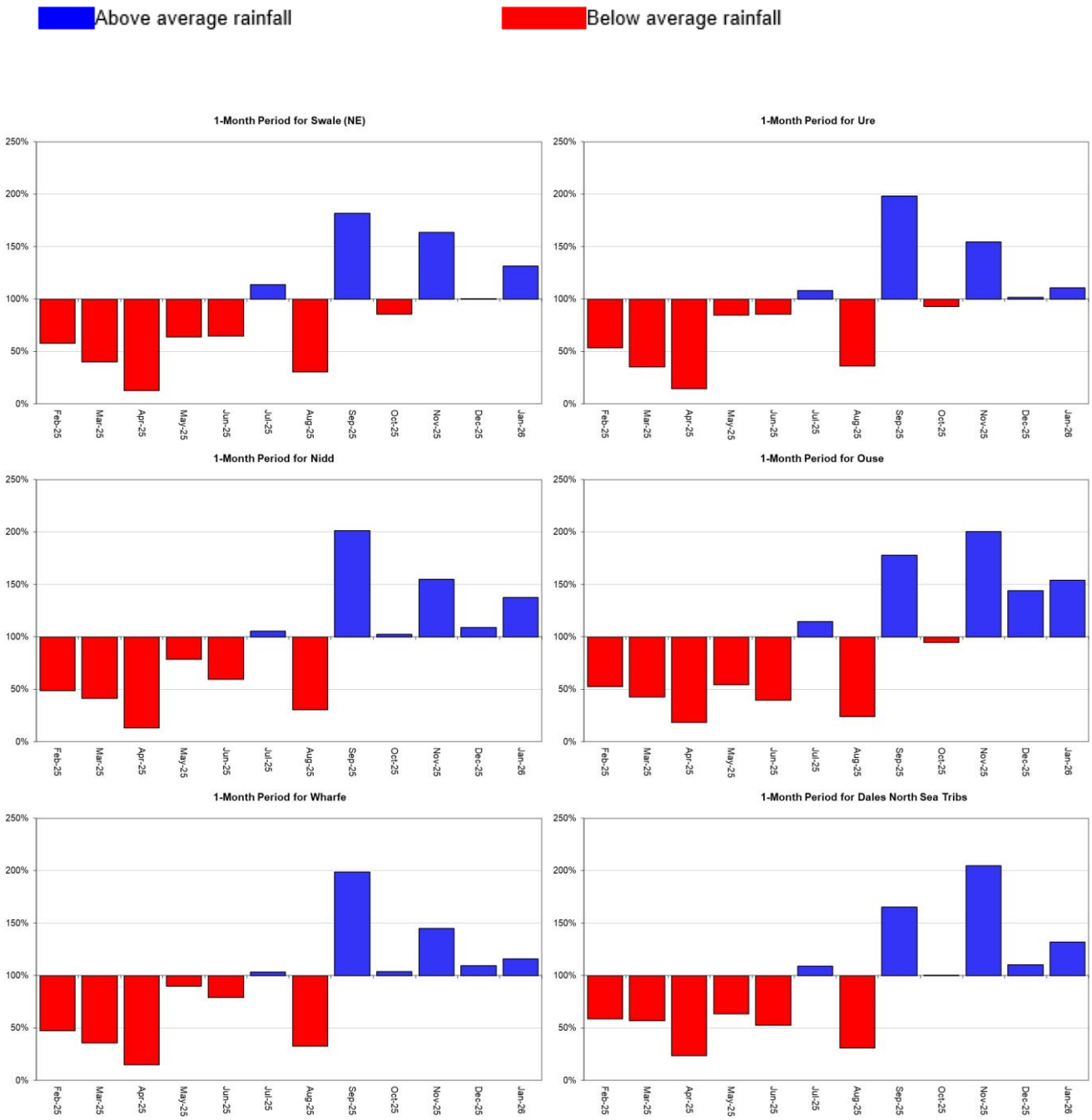
Figure 2.1: Total rainfall for hydrological areas across Yorkshire, expressed as a percentage of the 1991 to 2020 long term average rainfall, for the current month (up to 31 January 2026), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.

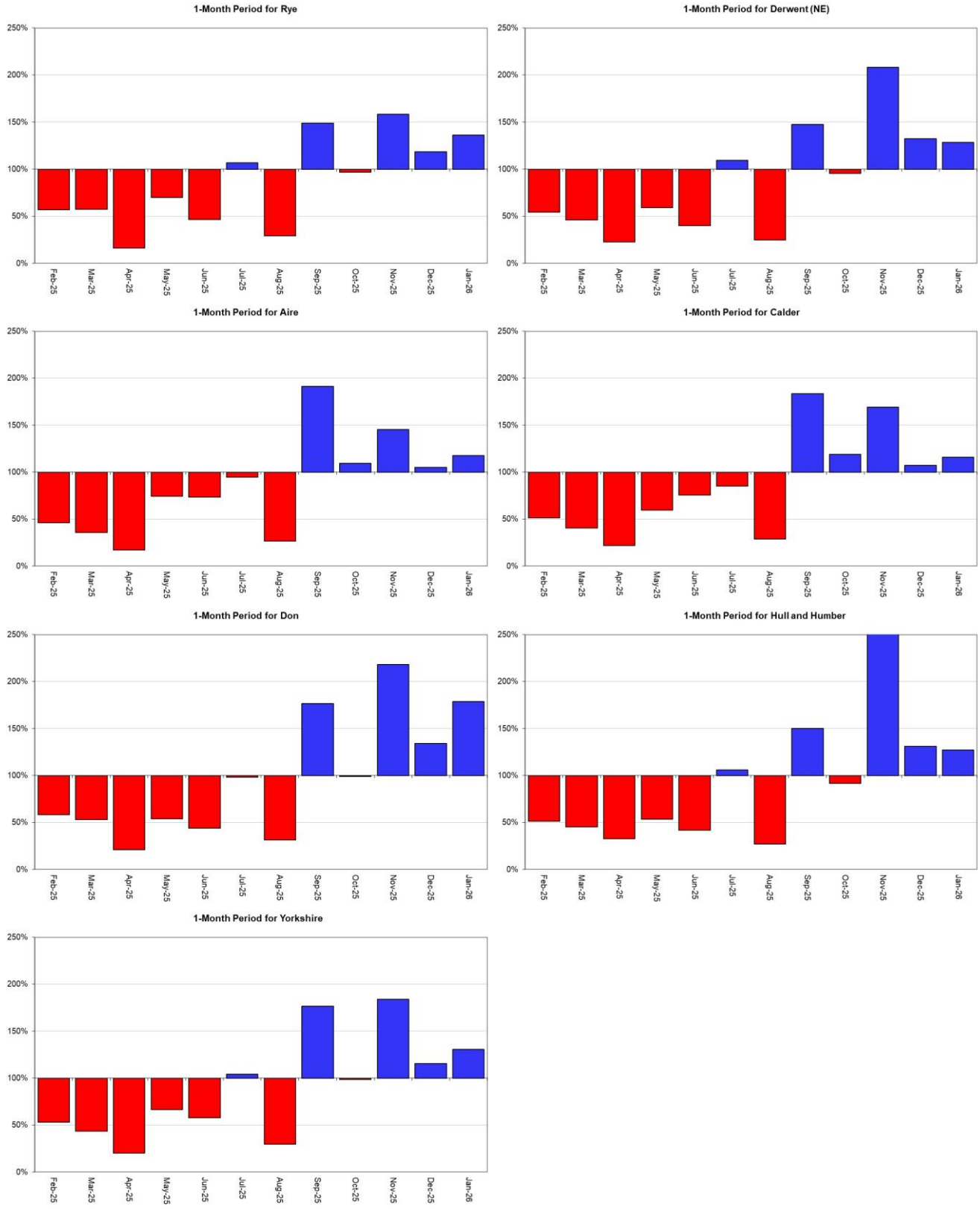


Rainfall data for January 2025 onwards, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, AC0000807064, 2026). Rainfall data prior to January 2025, extracted from Met Office HadUK 1km gridded 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 24 months as a percentage of the 1991 to 2020 long term average for each catchment.





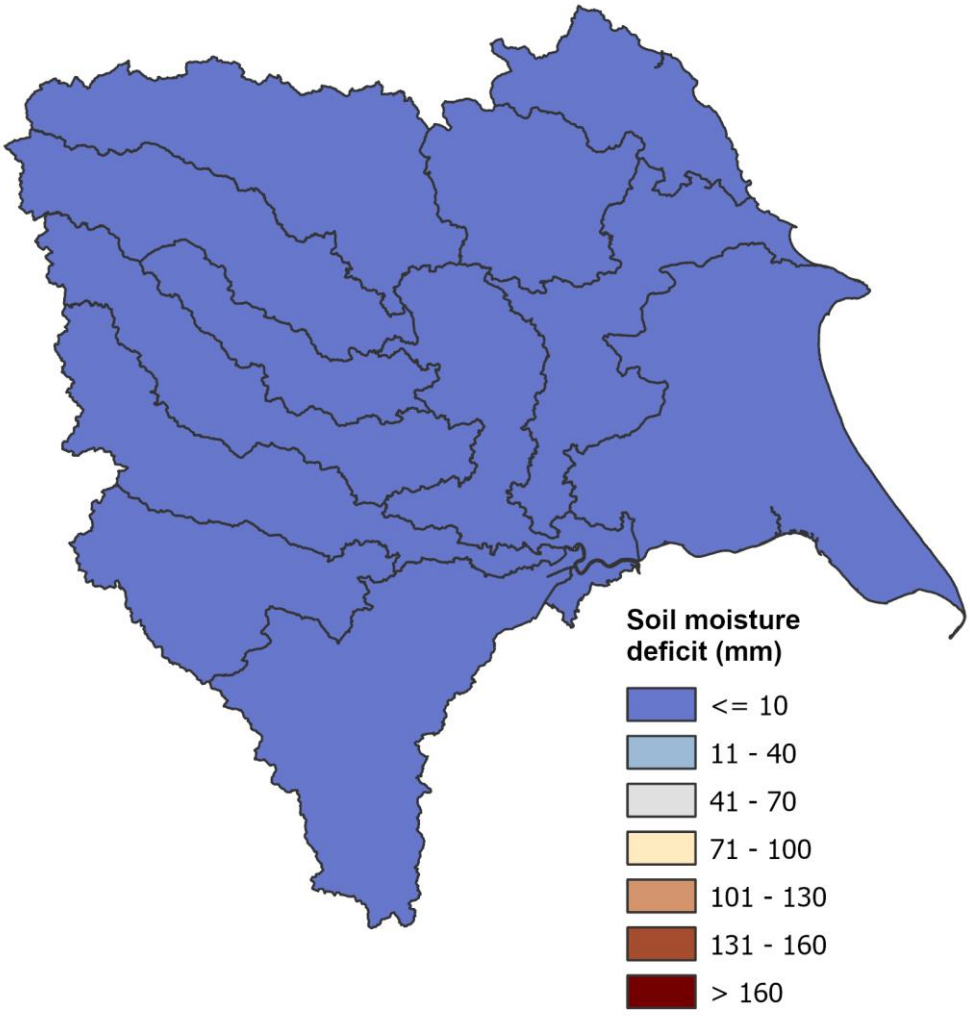
Rainfall data for January 2025 onwards, extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment

Agency. Crown Copyright, 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

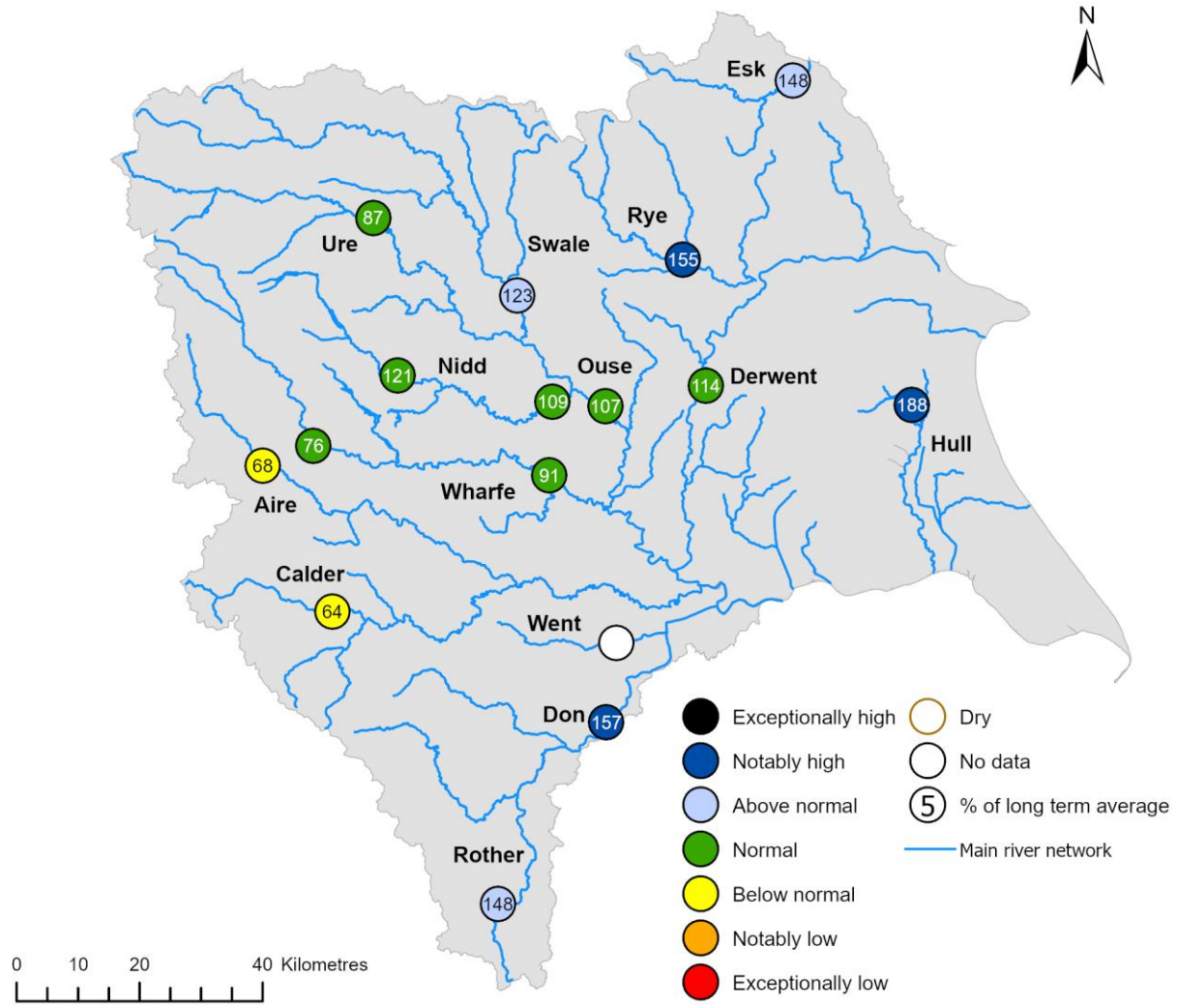
Figure 3.1: Soil moisture deficits for weeks ending 31 January 2026. Shows the actual soil moisture deficits (mm) within each hydrological area. Calculated from MORECS data for real land use.



4 River flows

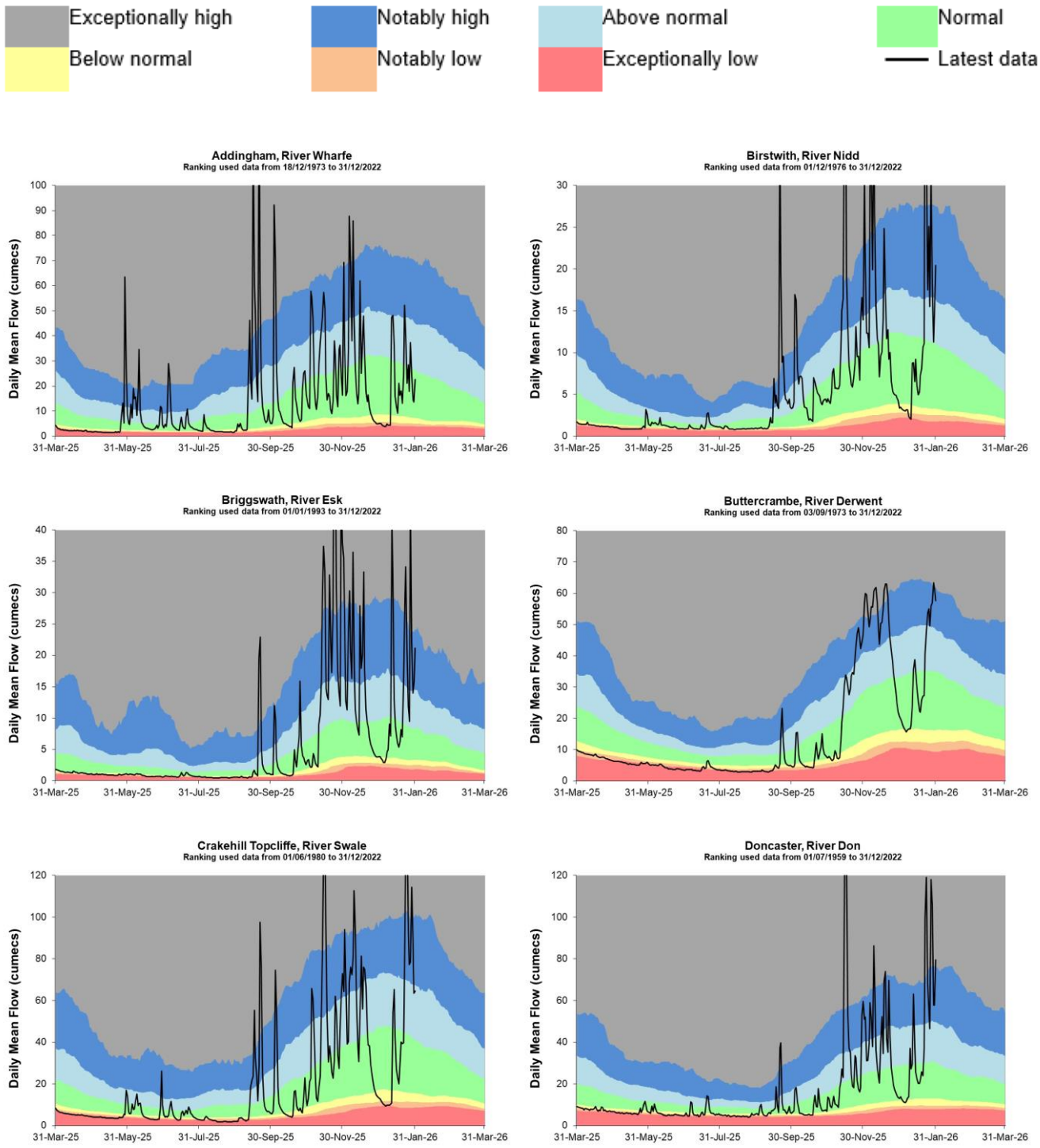
4.1 River flows map

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

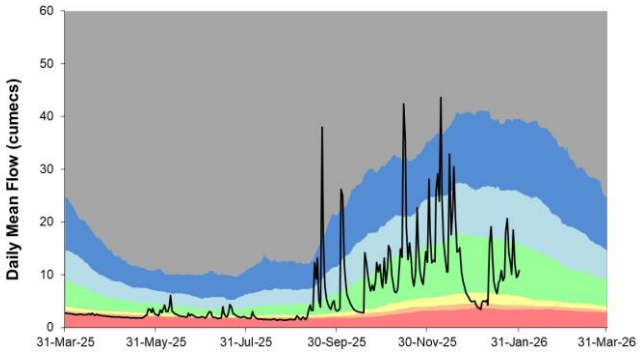


4.2 River flow charts

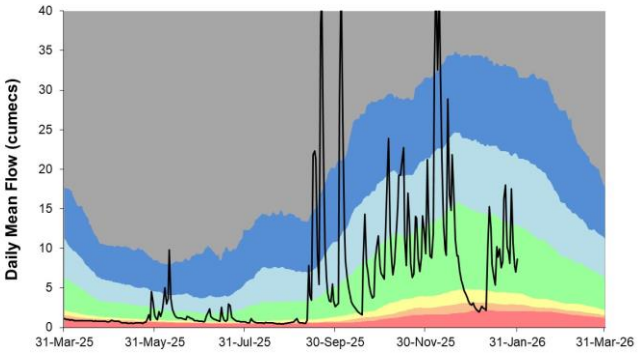
Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



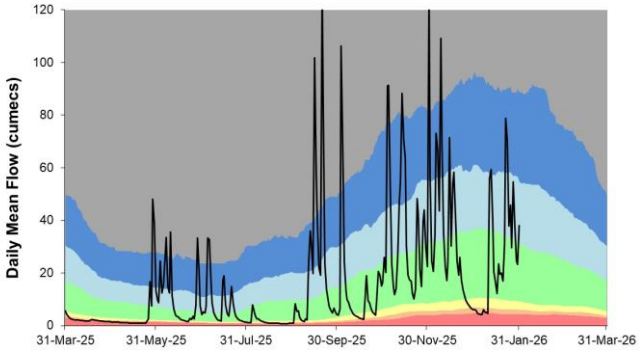
Elland, River Calder
Ranking used data from 01/07/1971 to 31/12/2022



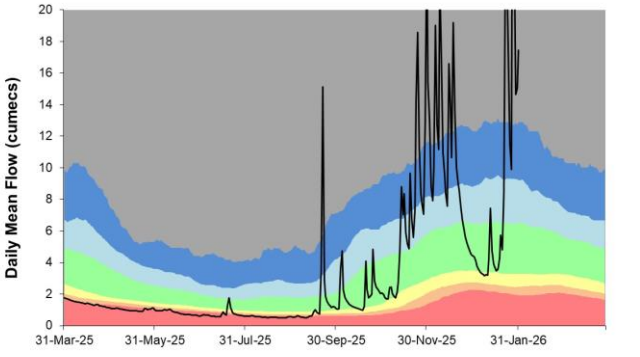
Kildwick, River Aire
Ranking used data from 01/08/1971 to 31/12/2022



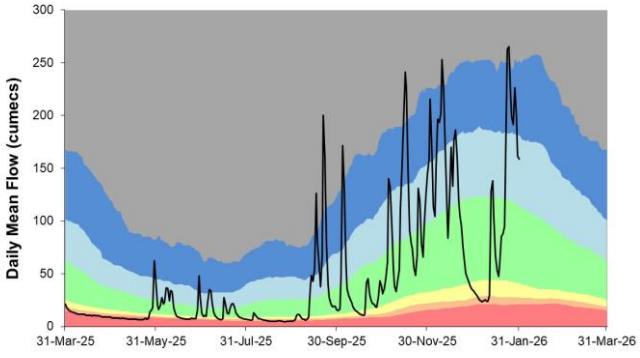
Kilgram Bridge, River Ure
Ranking used data from 01/08/1971 to 31/12/2022



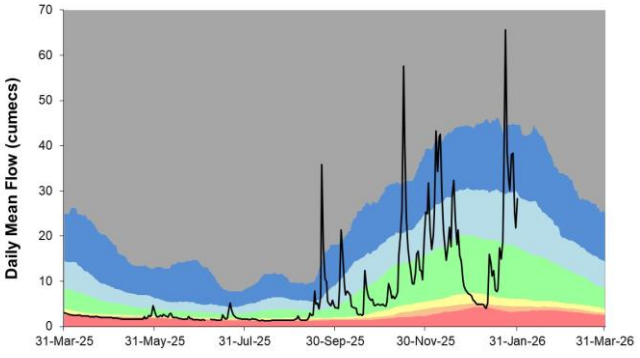
Ness, River Rye
Ranking used data from 01/09/1974 to 31/12/2022

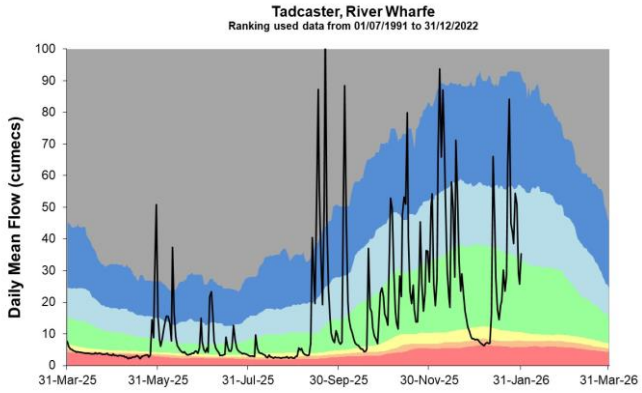


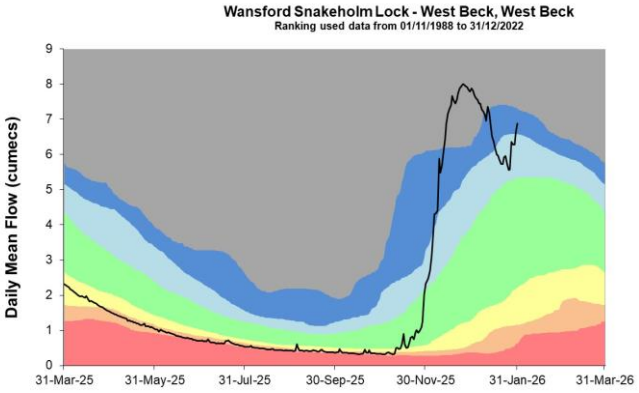
Skelton, River Ouse
Ranking used data from 18/09/1969 to 31/12/2022

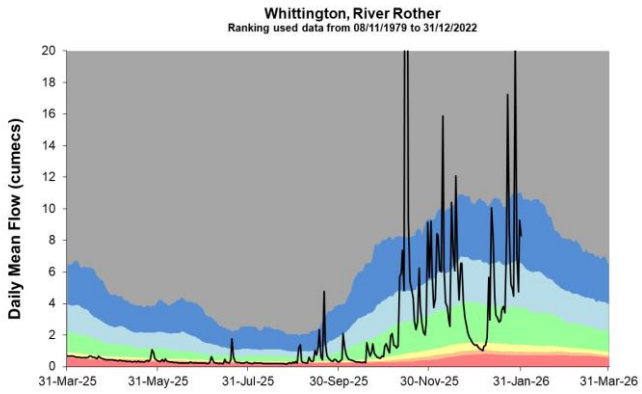


Skip Bridge Kirk Hammerton, River Nidd
Ranking used data from 12/06/1979 to 31/12/2022







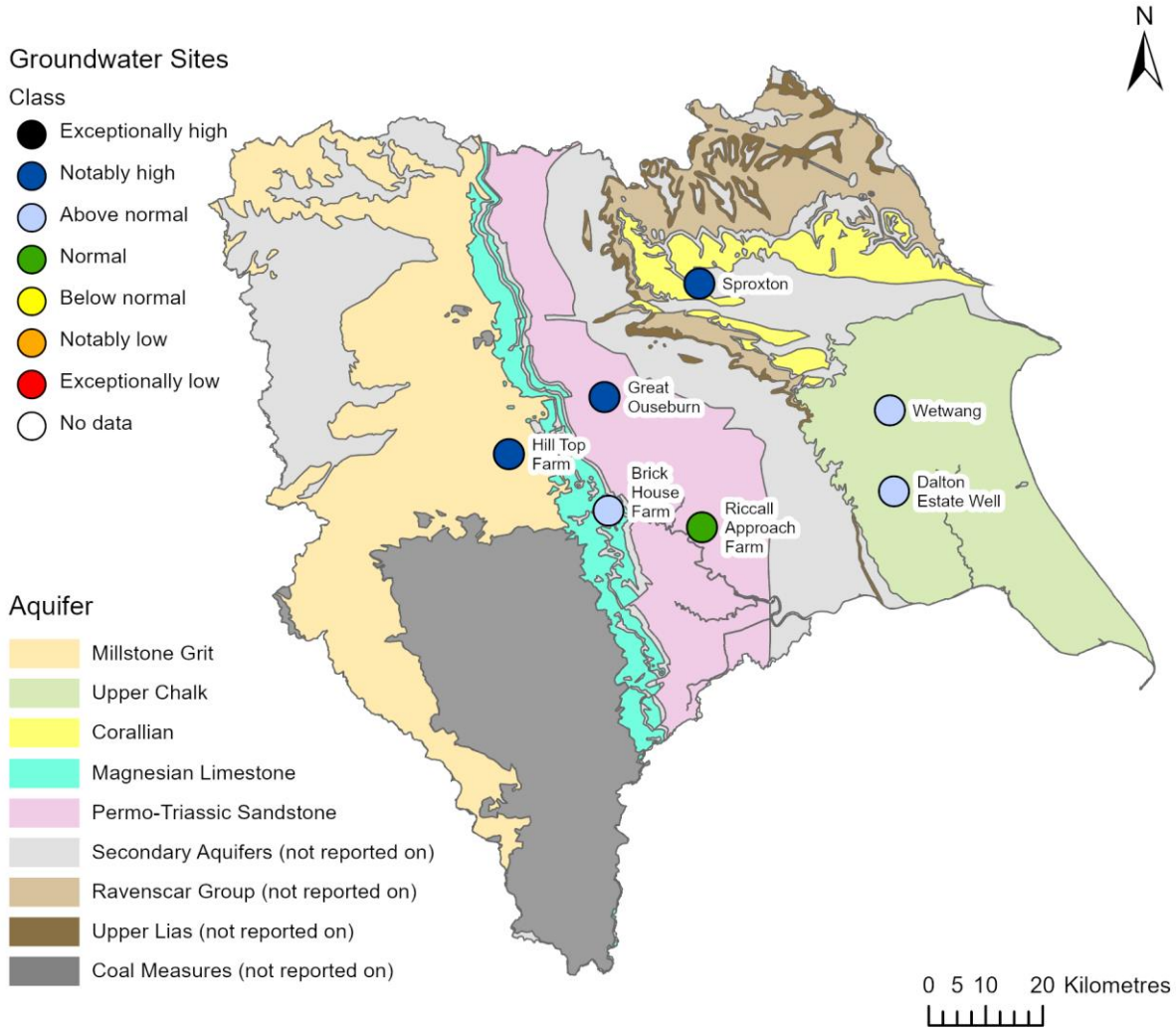


(Source: Environment Agency).

5 Groundwater levels

5.1 Groundwater levels map

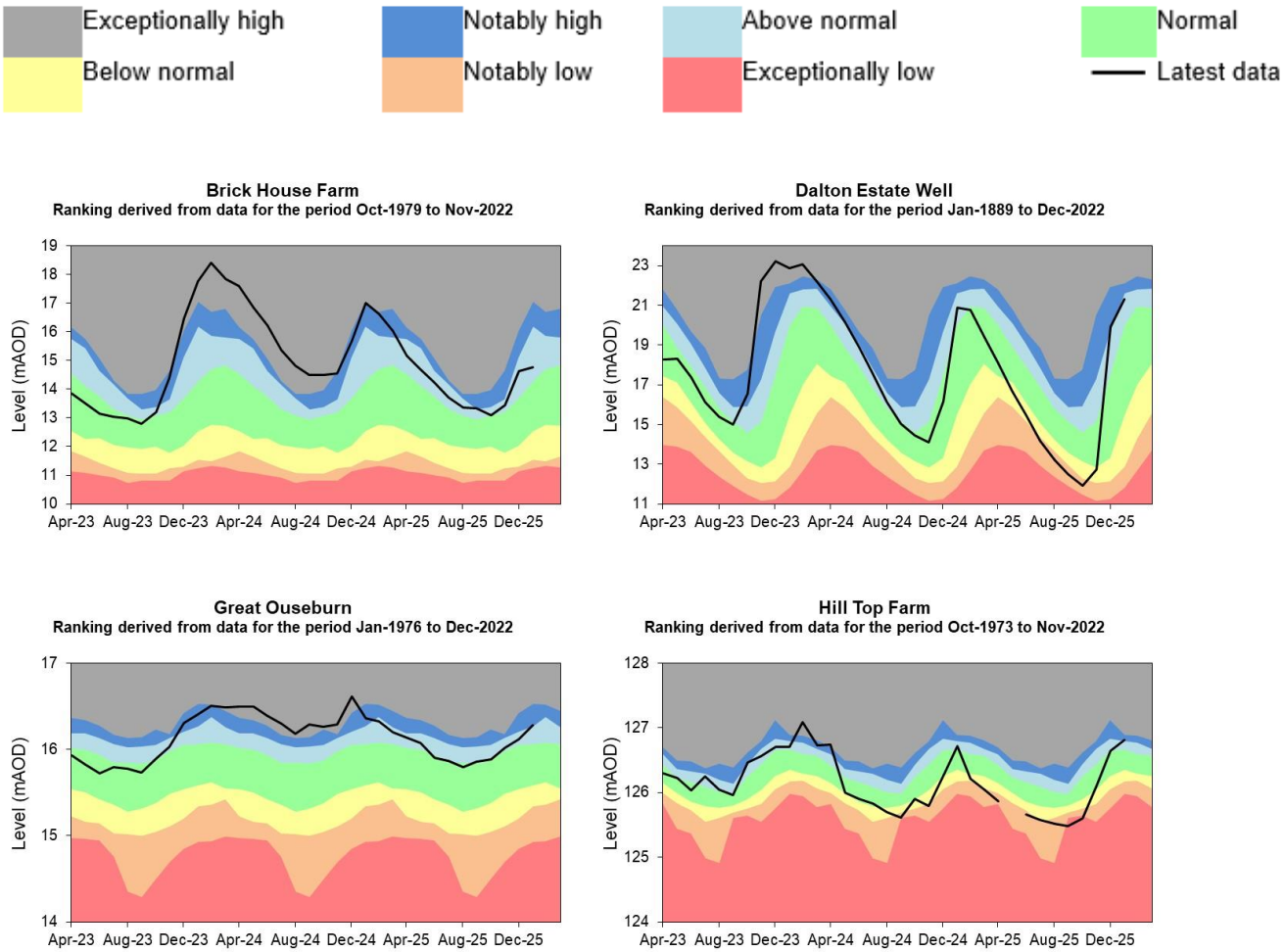
Figure 5.1: Groundwater levels for indicator sites at the end of January 2026, classed relative to an analysis of respective historic January levels. Table available in the appendices with detailed information.

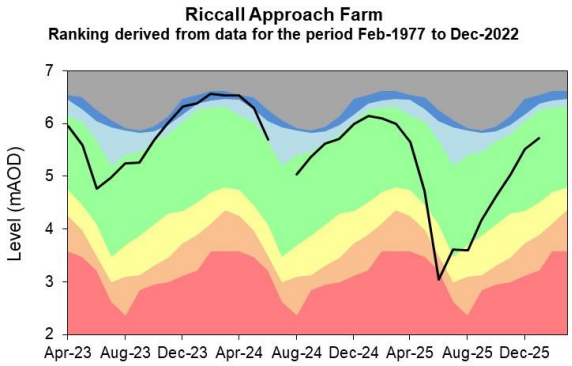


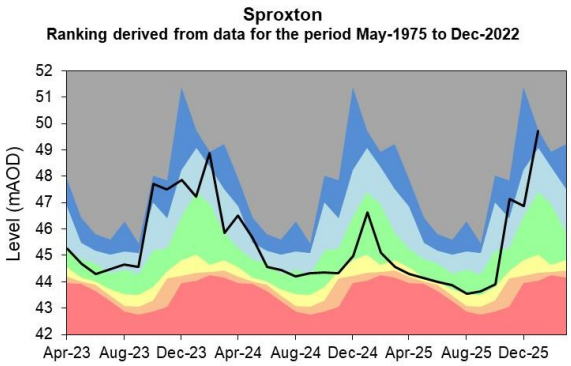
(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. All rights reserved. Environment Agency, AC0000807064, 2026.

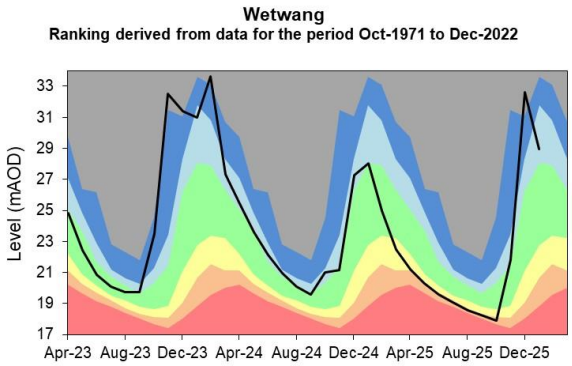
5.2 Groundwater level charts

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







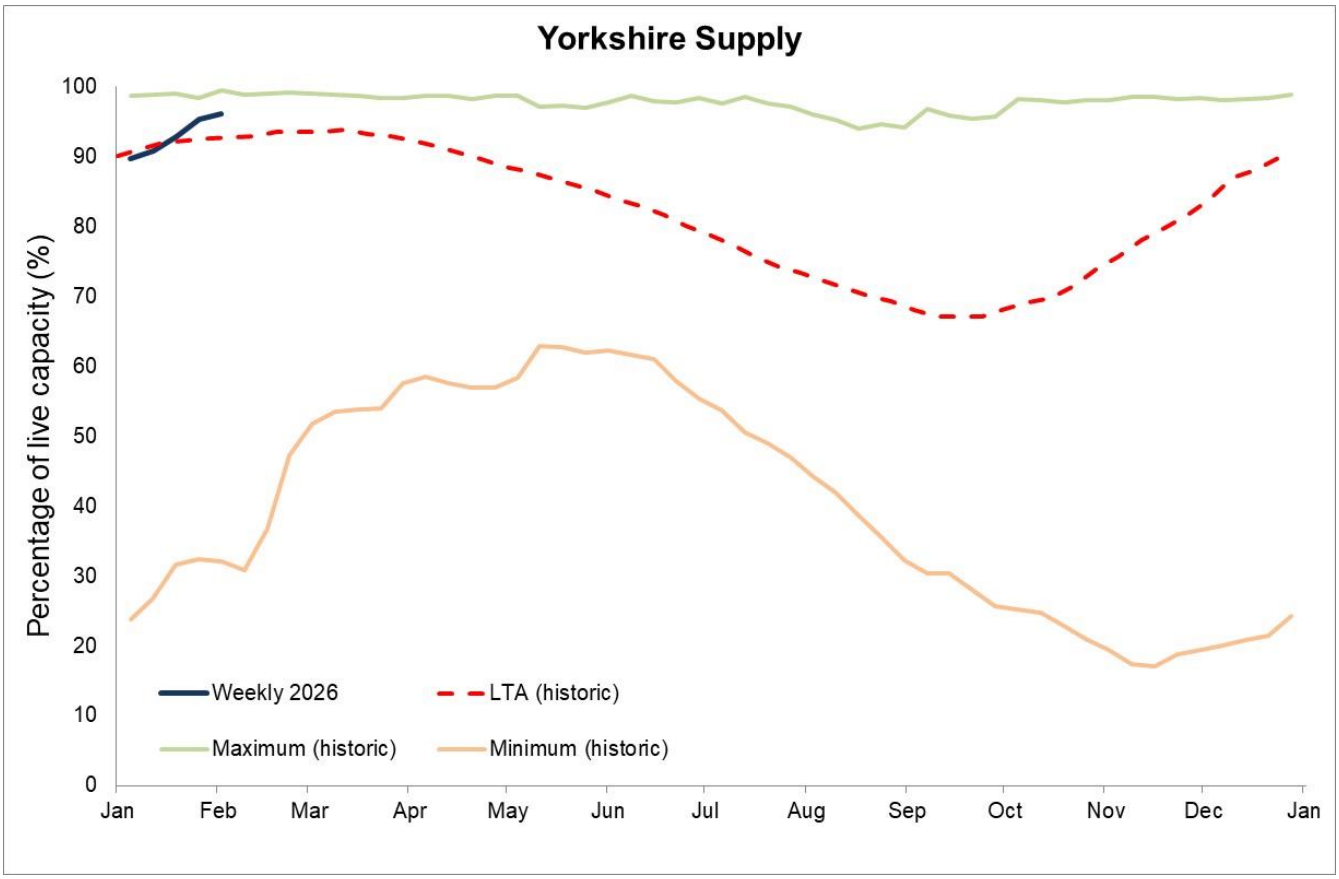


(Source: Environment Agency, 2026).

N.B. Hill Top Farm observation borehole is used for abstraction, therefore, the groundwater level record will be directly affected by pumping.

6 Reservoir stocks

Figure 6.1: End of month regional reservoir stocks compared to long term maximum, minimum and average stocks. Note: Historic records of individual reservoirs and reservoir groups making up the regional values vary in length.



(Source: Yorkshire Water).

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	Jan 2026 rainfall % of long term average 1991 to 2020	Jan 2026 band	Nov 2025 to January cumulative band	Aug 2025 to January cumulative band	Feb 2025 to January cumulative band
Aire	117	Normal	Notably high	Above normal	Normal
Calder	116	Normal	Notably high	Notably high	Normal
Dales North Sea Tributaries	132	Above normal	Exceptionally high	Notably high	Normal
Derwent (NE)	129	Normal	Exceptionally high	Notably high	Normal
Don	179	Notably high	Exceptionally high	Exceptionally high	Normal
Hull and Humber	127	Normal	Exceptionally high	Notably high	Normal
Nidd	138	Above normal	Notably high	Notably high	Normal
Ouse	154	Above normal	Exceptionally high	Notably high	Normal
Rye	136	Above normal	Notably high	Above normal	Normal

Hydrological area	Jan 2026 rainfall % of long term average 1991 to 2020	Jan 2026 band	Nov 2025 to January cumulative band	Aug 2025 to January cumulative band	Feb 2025 to January cumulative band
Swale (NE)	131	Above normal	Notably high	Above normal	Normal
Ure	111	Normal	Notably high	Above normal	Normal
Wharfe	116	Normal	Notably high	Notably high	Normal

8.2 River flows table

Site name	River	Catchment	Jan 2026 band	Dec 2025 band
Addingham	Wharfe	Wharfe Middle	Normal	Normal
Birstwith	Nidd	Nidd Middle	Normal	Notably high
Briggswath	Esk	Esk Yorks	Above normal	Notably high
Buttercrambe	Derwent	Derwent Yorks Middle	Normal	Exceptionally high
Crakehill Topcliffe	Swale	Swale Lower	Above normal	Above normal
Doncaster	Don	Don Lower	Notably high	Notably high
Elland	Calder	Calder Yorks Upper	Below normal	Normal
Skip Bridge Kirk Hammerton	Nidd	Nidd Lower	Normal	Above normal
Kildwick	Aire	Aire Upper	Below normal	Above normal
Kilgram Bridge	Ure	Ure Middle	Normal	Above normal
Ness	Rye	Rye	Notably high	Exceptionally high
Skelton	Ouse	Ouse Yorks	Normal	Above normal
Tadcaster	Wharfe	Wharfe Lower	Normal	Above normal

Site name	River	Catchment	Jan 2026 band	Dec 2025 band
Wansford Snakeholm Lock	West Beck	Hull Upper	Notably high	Exceptionally high
Whittington	Rother	Rother Yorks	Above normal	Notably high

8.3 Groundwater table

Site name	Aquifer	End of Jan 2026 band	End of Dec 2025 band
Brick House Farm	Wharfe Magnesian Limestone	Above normal	Above normal
Dalton Estate Well	Hull and East Riding Chalk	Above normal	Notably high
Great Ouseburn	Sherwood Sandstone	Notably high	Above normal
Hill Top Farm	Millstone Grit and Carboniferous Limestone	Notably high	Normal
Riccall Approach Farm	Sherwood Sandstone	Normal	Normal
Sproxton	Sherwood Sandstone	Notably high	Above normal
Wetwang	Hull and East Riding Chalk	Above normal	Exceptionally high