

Monthly water situation report: North East Area

1 Summary - June 2026

June rainfall totals were normal across the area. Monthly mean river flows increased at most indicator sites, falling within the above normal, normal, below normal, and notably low ranges. Soil moisture deficits increased in most catchments. Most reservoirs recorded a decrease in stocks. Groundwater levels fell within the normal range in the Fell Sandstone and above normal in the Magnesian Limestone.

1.1 Rainfall

Monthly rainfall totals were below the long term average (LTA) in all catchments but classed as normal for the time of year. Rainfall totals ranged from 51% of the LTA in the Seaham catchment to 89% in the Tyne catchment. Cumulative 3 month totals were normal in the Tees and Seaham catchments and below normal across the rest of the area.

Daily rainfall totals were higher in the first half of the month, with the highest totals generally recorded around 3 June. The remainder of the month was drier, although rainfall was recorded on most days.

1.2 Soil moisture deficit

Soil moisture deficits increased in all catchments except the Tyne catchment. Soil moisture deficits were 41 to 70 mm in the Tyne catchment and 101 to 130 mm in the Seaham catchment. Soil moisture deficits were 71 to 100 mm across the rest of the area.

1.3 River flows

Monthly mean river flows increased at most indicator sites with the exception of Rothbury on the River Coquet and Witton Park on the River Wear. Monthly mean flows ranged from 42% of the LTA at Rothbury to 101% of the LTA at Middleton in Teesdale on the River Tees. Monthly mean flows at Rothbury and Witton Park remained notably low and below normal, respectively, for the time of year. Monthly mean flows at Middleton in Teesdale and Rutherford Bridge on the River Greta remained normal for the time of year. Monthly mean flows at Hartford Bridge on the River Blyth increased to above normal for the time of year. Monthly mean flows at Haydon Bridge on the River South Tyne increased to normal for the time of year.

Daily mean flows increased at all sites at the start of June following a period of decreasing flows at the end of May. Flows at Haydon Bridge, Witton Park, Middleton in Teesdale, and Rutherford Bridge were above normal, notably high, or exceptionally high during the first 4 days of June. Daily mean flows decreased in the second half of the month at most sites.

Haydon Bridge, Middleton in Teesdale, and Rutherford Bridge recorded below normal flows during the final week. Flows at Witton Park were below normal, notably low, or exceptionally low from 15 June until the end of the month. Flows at Rothbury were below normal, notably low, or exceptionally low for the majority of June, particularly in the second half of the month. Hartford Bridge recorded below normal flows for the majority of June, increasing to above normal, notably high, and exceptionally high in the last 5 days.

1.4 Groundwater levels

In the Fell Sandstone, groundwater levels decreased at Royalty Observation and Townlaw. Despite this decrease, levels at Townlaw changed from below normal to normal for the time of year at the end of June. Levels at Royalty Observation changed from above normal to normal for the time of year. In the Magnesian Limestone, levels decreased at West Hall Farm and Aycliffe Nra2, and increased at Red Lion. However, levels at all 3 sites remained above normal for the time of year, consistent with May.

1.5 Reservoir stocks

Most reservoirs recorded a decrease in stocks. The largest decrease was recorded in the North Tynedale group which fell from 81.0% to 72.1% by the end of June. Kielder stocks increased from 91.5% to 92.4% and Cow Green stocks remained at 83.3%, both above average for the time of year. Stocks in the North Tynedale group and Derwent reservoir fell below average for the time of year. Stocks in the Durham and Lune and Balder groups remained below average for the time of year.

Transfers from the Kielder transfer tunnel to support Waskerley reservoir stocks in the Durham group began at the end of May. Hury reservoir in the Lune and Balder group was drawn down in April for reservoir safety work.

Reservoir or reservoir group	Percentage of current stocks	Percentage of previous month stocks
Kielder	92.4	91.5
North Tynedale group	72.1	81.0
Derwent	75.8	82.8
Durham group	69.6	77.7
Lune and Balder group	76.9	78.5

Reservoir or reservoir group	Percentage of current stocks	Percentage of previous month stocks
Cow Green	83.3	83.3

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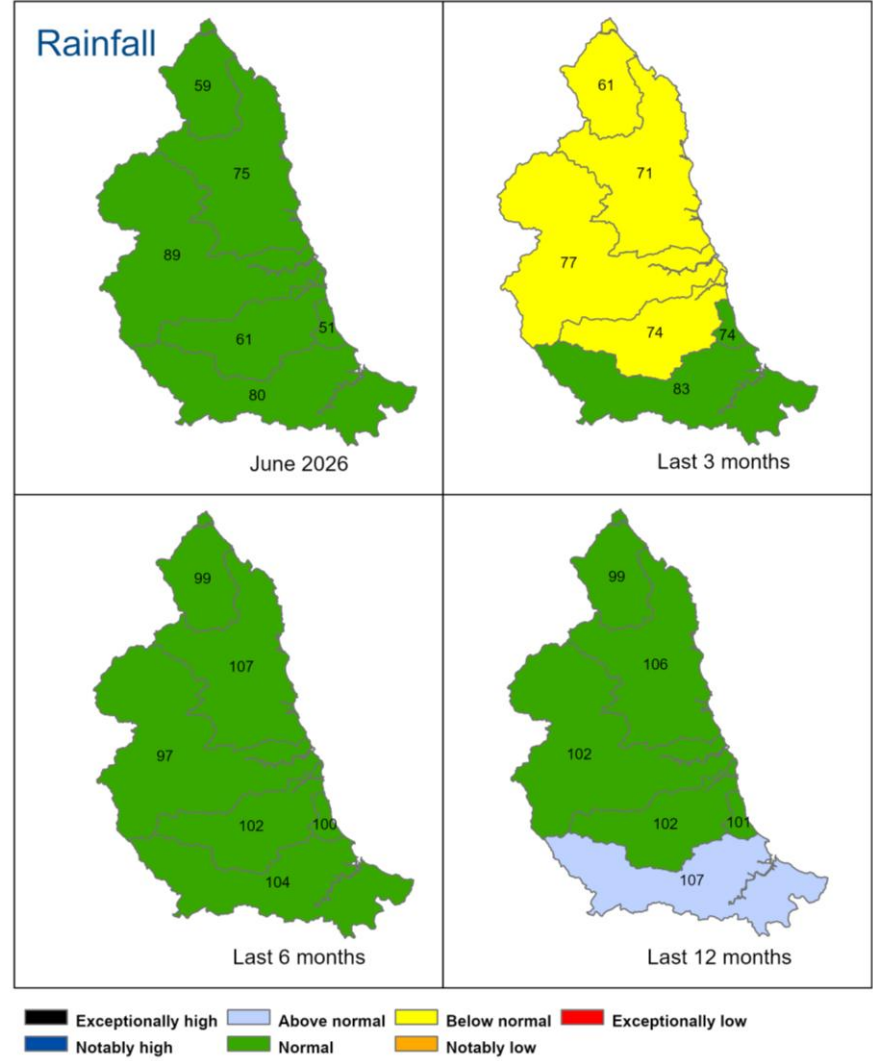
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2 Rainfall

2.1 Rainfall map

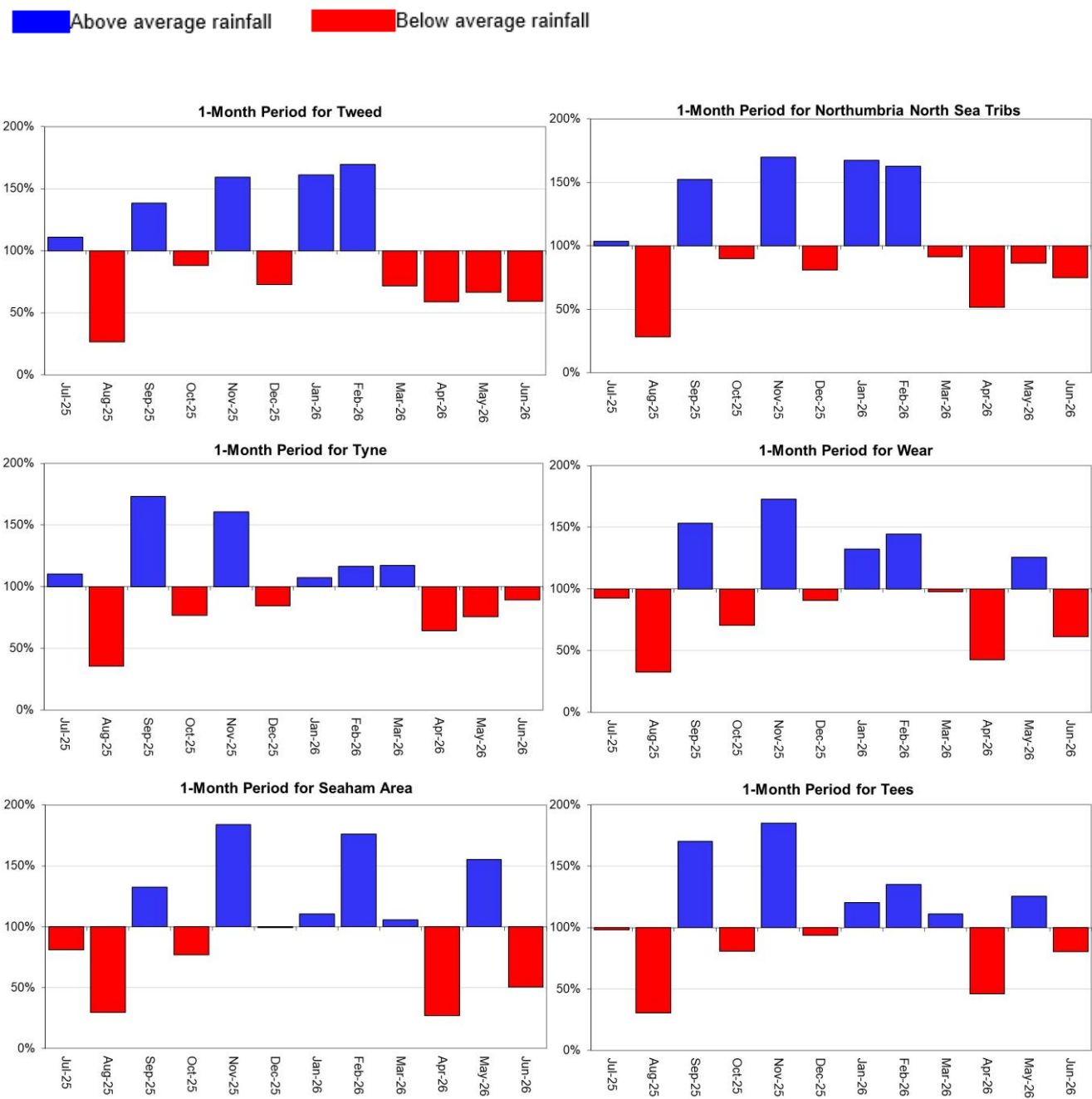
Figure 2.1: Total rainfall for hydrological areas, expressed as a percentage of the 1991 to 2020 LTA. Rainfall is shown for the current month (up to 30 June 2026), the last 3 months, the last 6 months, and the last 12 months. Totals are classed relative to an analysis of respective historic totals. June totals were normal across all catchments. Cumulative 3 month totals were normal in the Tees and Seaham catchments and below normal in all other catchments. Map of catchments and table with detailed information available in the appendices.



Rainfall data extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, AC0000807064, 2026).

2.2 Rainfall charts

Figure 2.2: Monthly rainfall totals for the past 12 months as a percentage of the 1991 to 2020 LTA for each catchment.

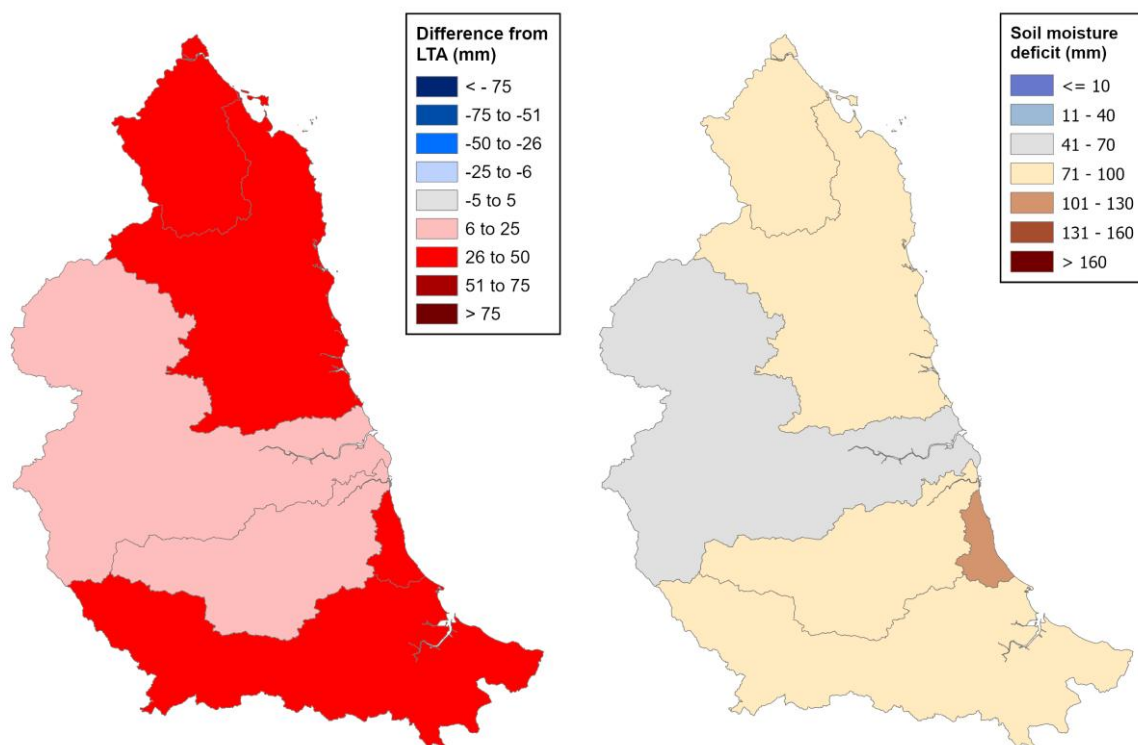


Rainfall data extracted from Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. (Source: Environment Agency. Crown Copyright, 2026).

3 Soil moisture deficit

3.1 Soil moisture deficit map

Figure 3.1: Soil moisture deficits for week ending 1 July 2026. Right panel shows actual soil moisture deficits (mm) in each catchment. Left panel shows the difference (mm) of the actual from the 1991 to 2020 LTA soil moisture deficits in each catchment. There were 6 to 25mm differences from the LTA in the Tyne and Wear catchments and 26 to 50mm differences in all other catchments. Actual soil moisture deficits were lowest in the Tyne catchment, between 41 to 70mm, and highest in the Seaham catchment, between 101 to 130mm. Actual soil moisture deficits were 71 to 100mm in all other catchments. Calculated from MORECS data for real land use. Map of catchments available in the appendices.

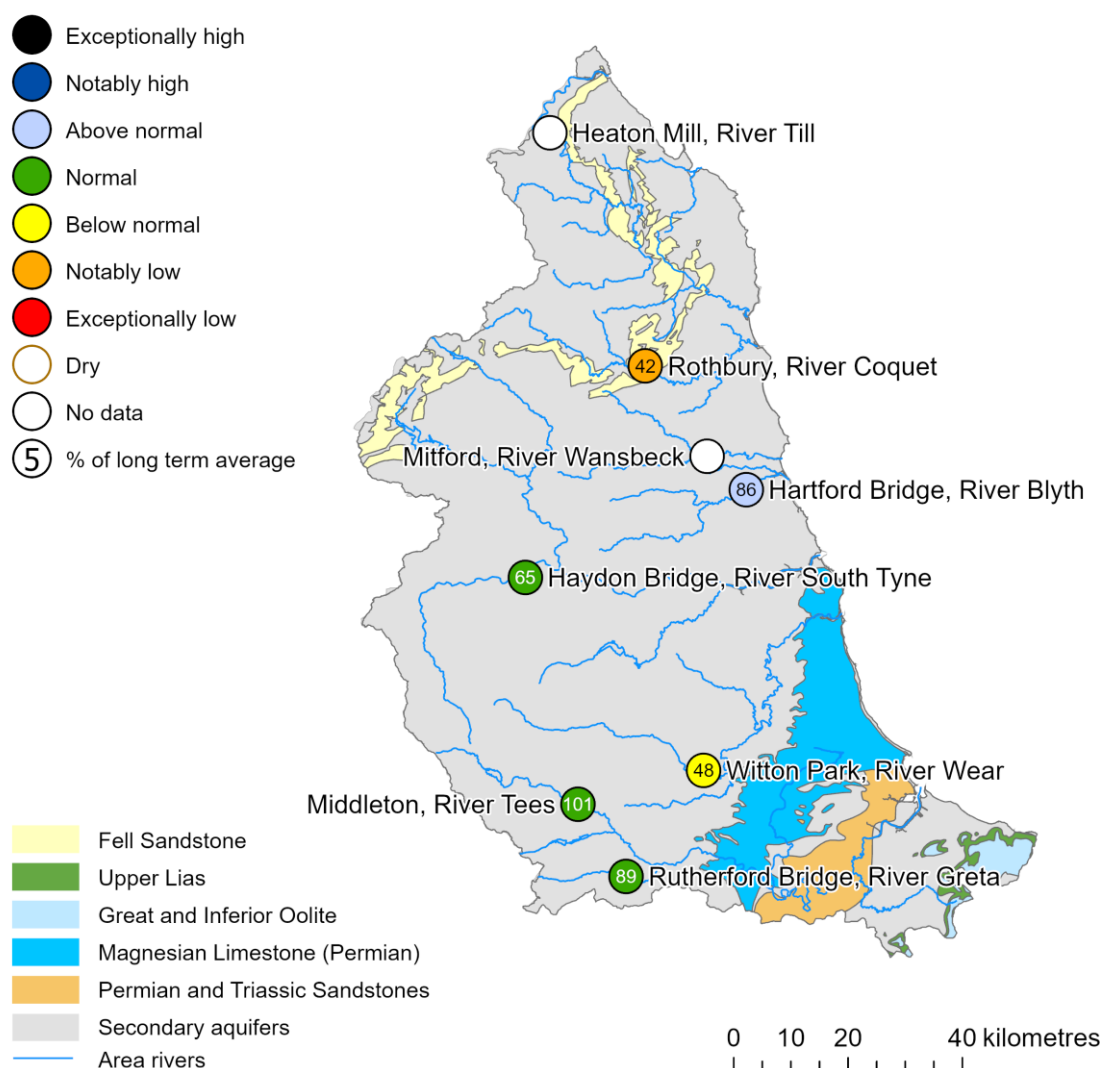


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4 River flows

4.1 River flows map

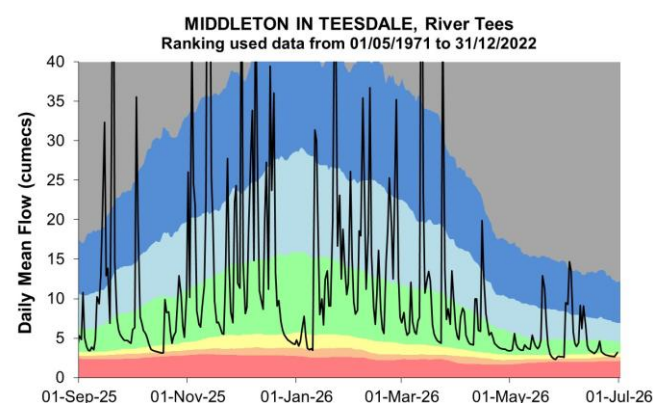
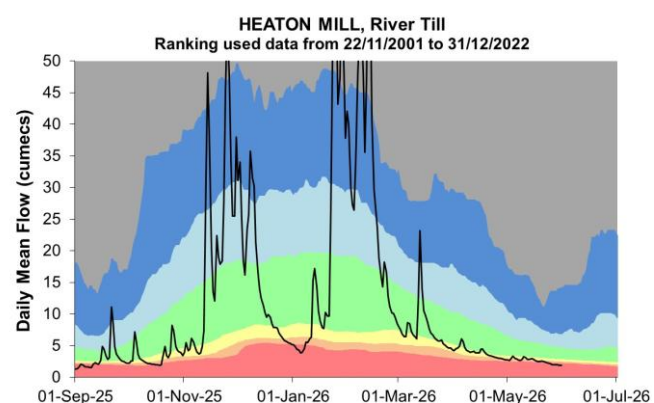
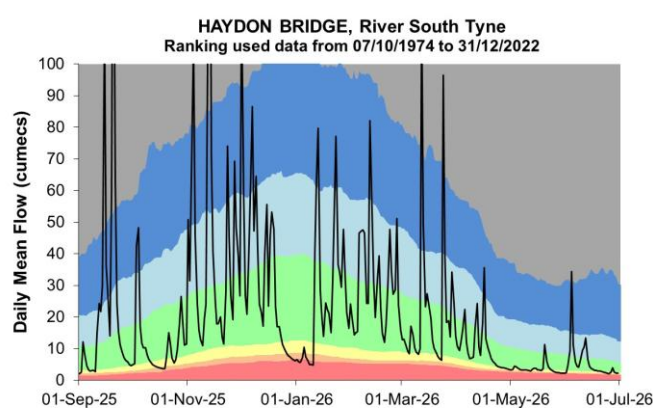
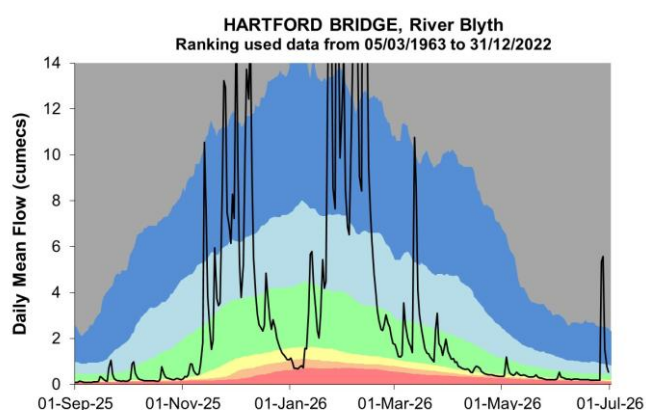
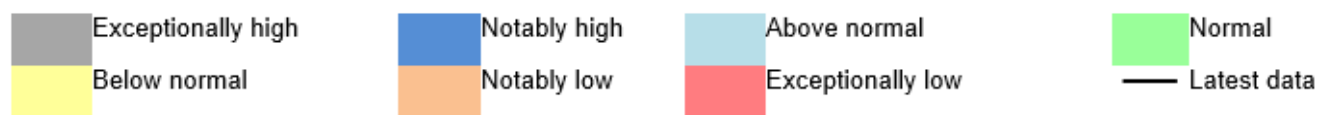
Figure 4.1: Monthly mean river flow for indicator sites for June 2026, expressed as a percentage of the respective LTA. Flows are classed relative to an analysis of historic June monthly means. Monthly mean flows were notably low at Rothbury and below normal at Witton Park. Monthly mean flows were above normal at Hartford Bridge and normal at Haydon Bridge, Middleton in Teesdale, and Rutherford Bridge. A full month of data is not available at Heaton Mill or Mitford due to site issues. Table available in the appendices with detailed information.

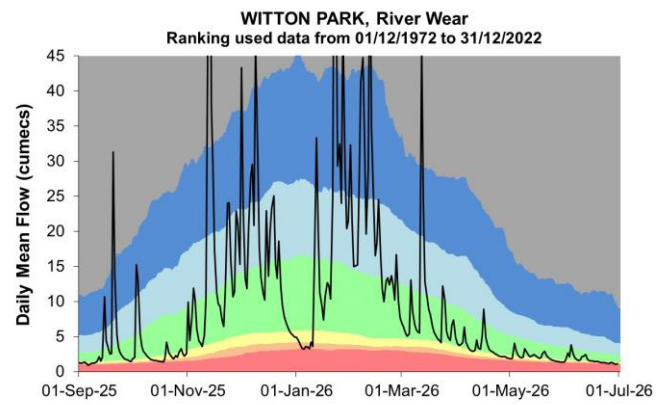
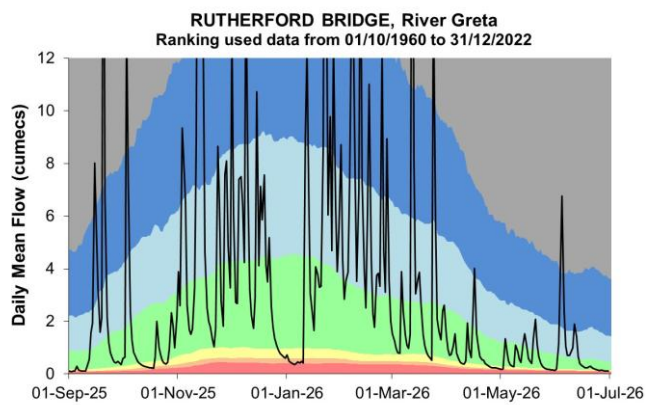
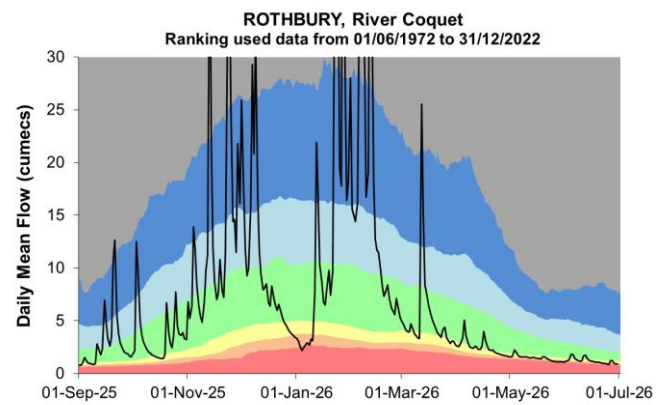
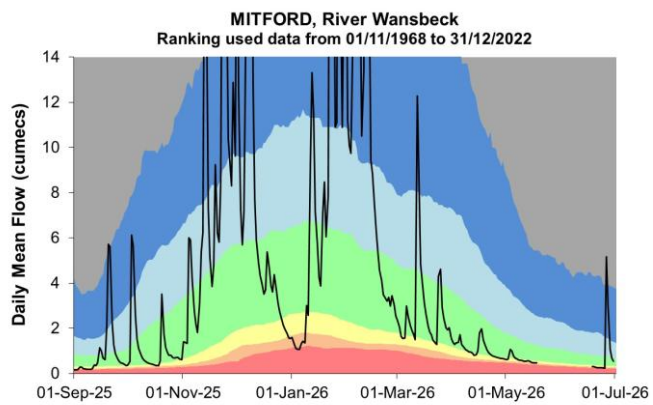


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4.2 River flow charts

Figure 4.2: Daily mean river flow for index sites over the past 10 months, compared to an analysis of historic daily mean flows. A full month of data is not available at Heaton Mill or Mitford due to site issues.



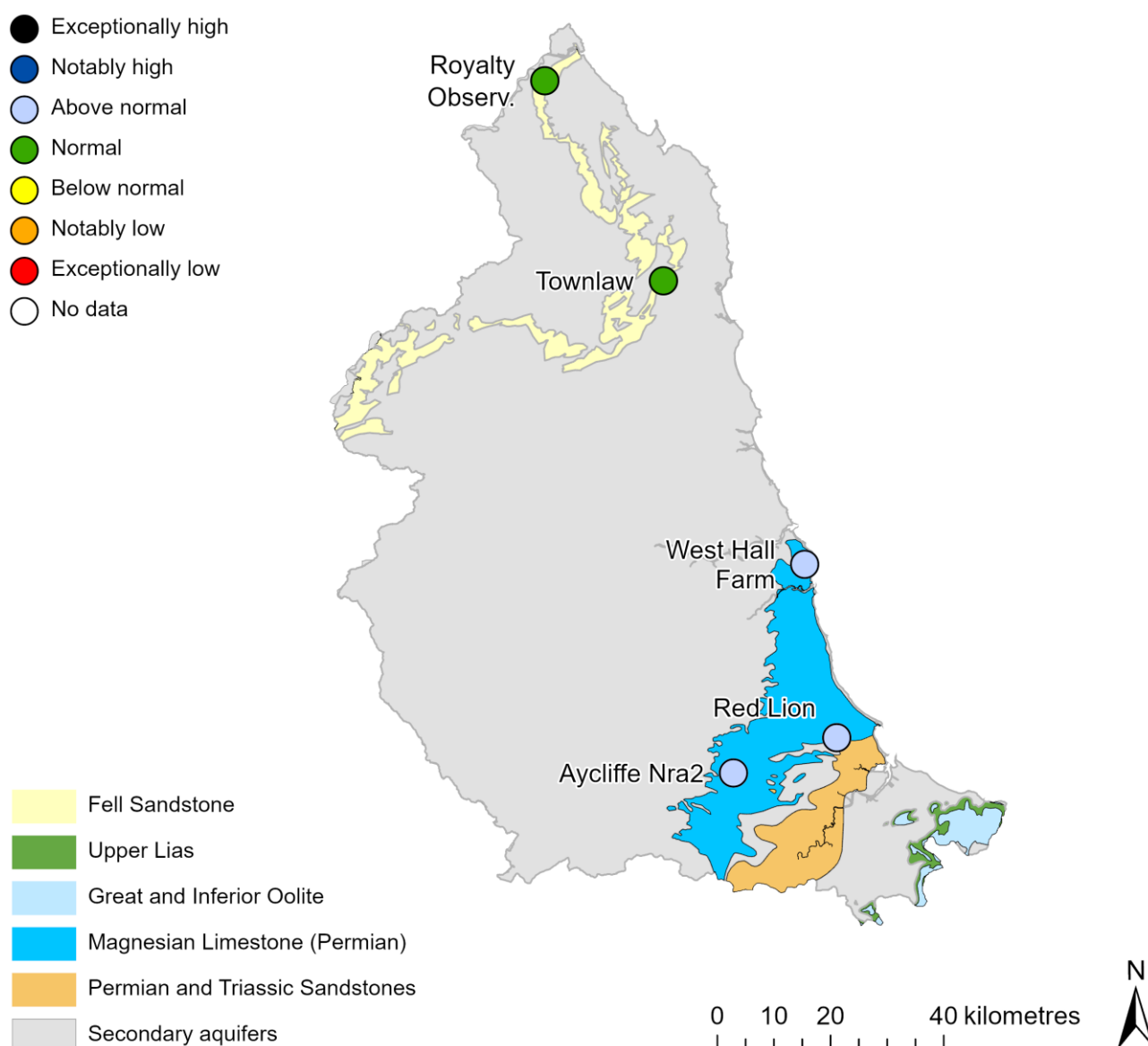


(Source: Environment Agency).

5 Groundwater levels

5.1 Groundwater levels map

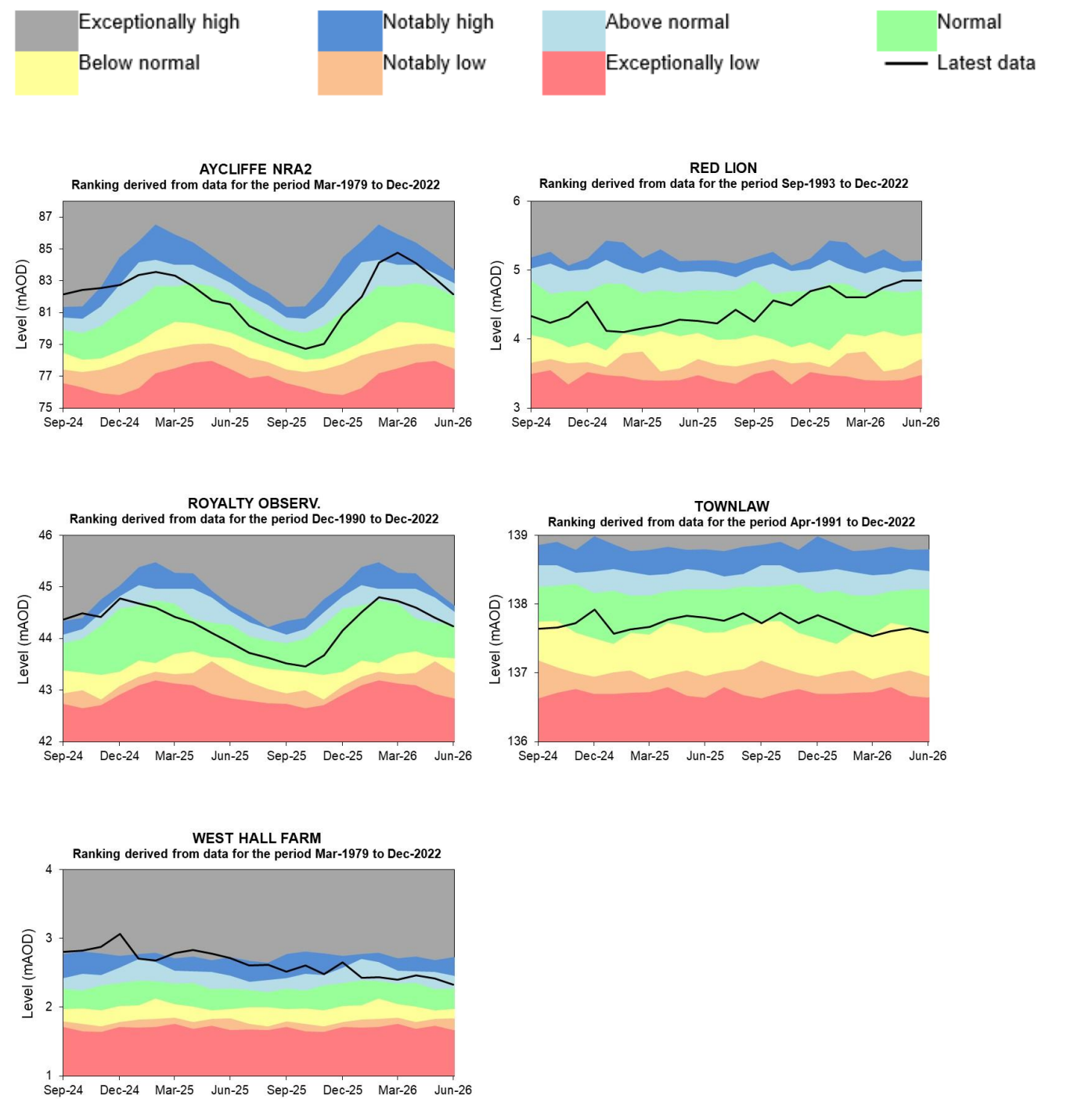
Figure 5.1: Groundwater levels for indicator sites at the end of June 2026, classed relative to an analysis of respective historic end of June levels. Groundwater levels were normal at Royalty Observation and Townlaw and above normal at West Hall Farm, Red Lion, and Aycliffe Nra2. Table available in the appendices with detailed information.



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5.2 Groundwater level charts

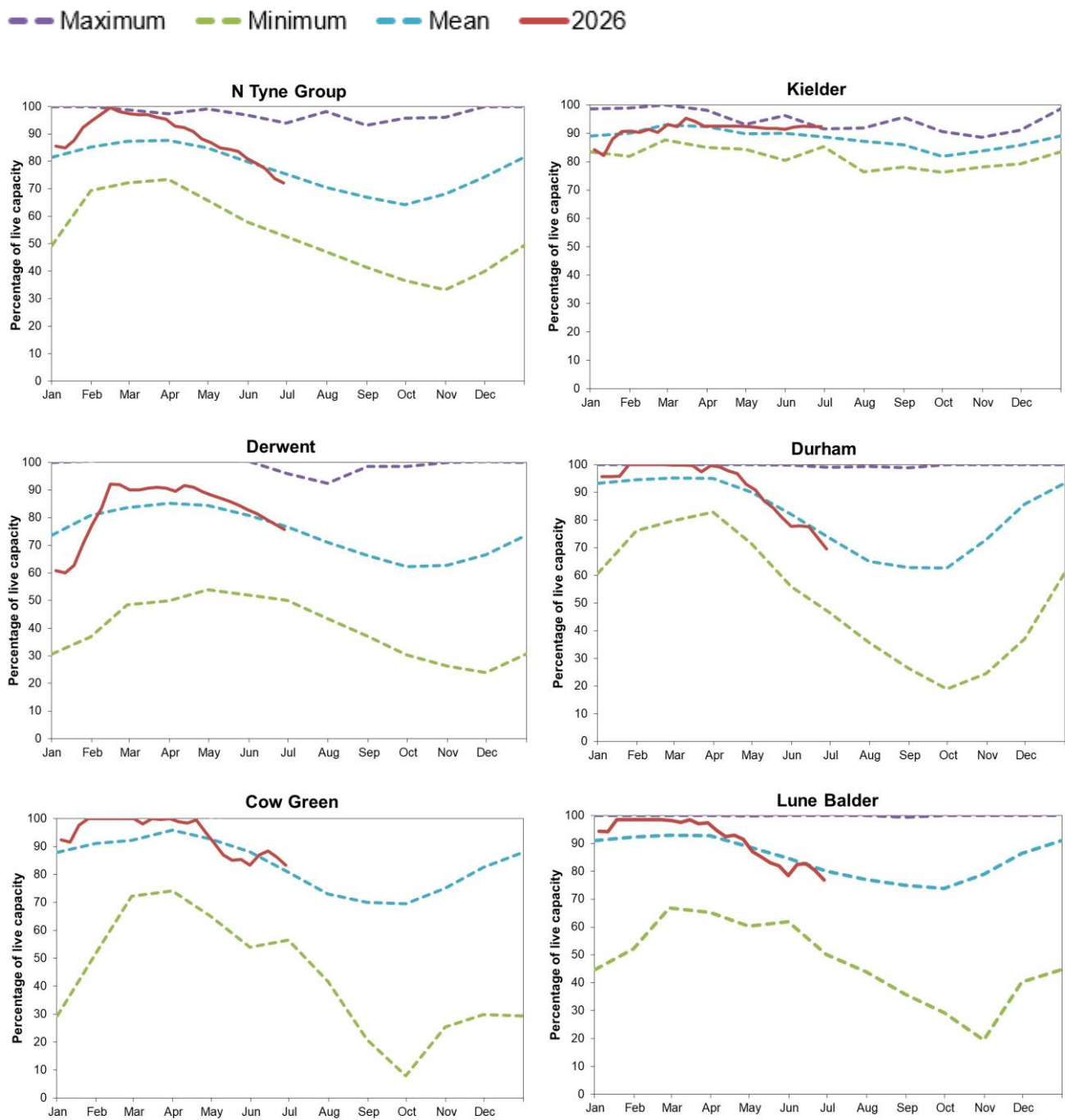
Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of June levels.



(Source: Environment Agency, 2026).

6 Reservoir stocks

Figure 6.1: End of month reservoir stocks compared to long term maximum, minimum, and mean stocks. Note: Historic records of individual reservoirs and reservoir groups vary in length.



(Source: Northumbrian 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 40km 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 1km 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

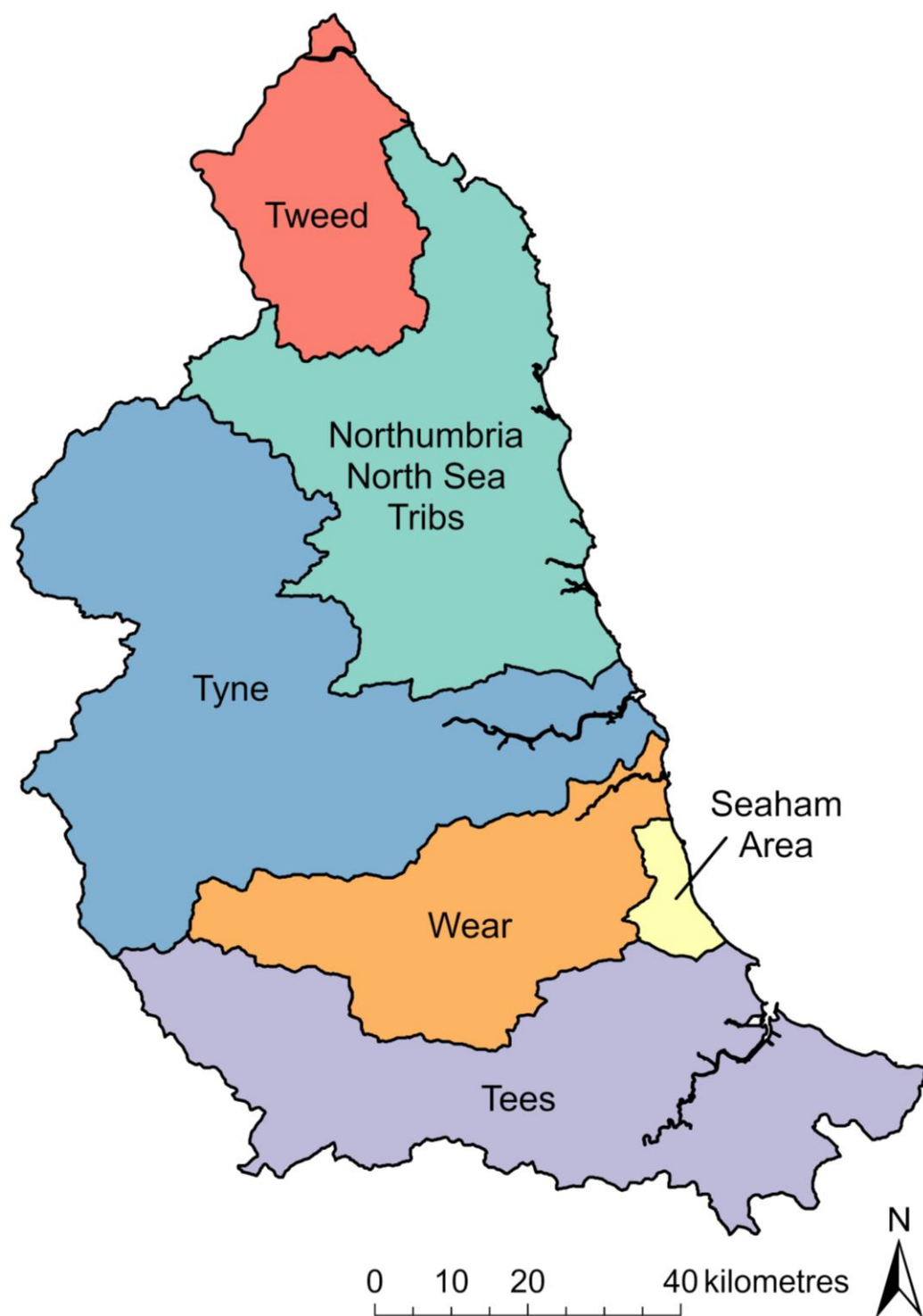
Value likely to fall within this band 8% of the time.

Exceptionally low

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

8 Appendices

8.1 Catchments map



8.2 Rainfall table

Hydrological area	Jun 2026 rainfall % of long term average 1991 to 2020	Jun 2026 band	Apr 2026 to June cumulative band	Jan 2026 to June cumulative band	Jul 2025 to June cumulative band
Northumbria North Sea Tribes	75	Normal	Below normal	Normal	Normal
Seaham Area	51	Normal	Normal	Normal	Normal
Tees	80	Normal	Normal	Normal	Above normal
Tweed	59	Normal	Below normal	Normal	Normal
Tyne	89	Normal	Below normal	Normal	Normal
Wear	61	Normal	Below normal	Normal	Normal

8.3 River flows table

Site name	River	Catchment	Jun 2026 band	May 2026 band
Hartford Bridge	Blyth	Blyth	Above normal	Below normal
Haydon Bridge	South Tyne	South Tyne	Normal	Below normal
Heaton Mill	Till	Till	No data	Exceptionally low
Middleton In Teesdale	Tees	Tees	Normal	Normal
Mitford	Wansbeck	Wansbeck	No data	No data
Rothbury	Coquet	Coquet	Notably low	Notably low
Rutherford Bridge	Greta	Greta	Normal	Normal
Witton Park	Wear	Wear	Below normal	Below normal

8.4 Groundwater table

Site name	Aquifer	End of Jun 2026 band	End of May 2026 band
Aycliffe Nra2	Skerne Magnesian Limestone	Above normal	Above normal
Red Lion	Skerne Magnesian Limestone	Above normal	Above normal
Royalty Observ.	Till Fell Sandstone	Normal	Above normal
Townlaw	Till Fell Sandstone	Normal	Below normal
West Hall Farm	Wear Magnesian Limestone	Above normal	Above normal