

Monthly water situation report: Lincolnshire and Northamptonshire Area

1 Summary - September 2026

September 2026 averaged 23mm of rain across Lincolnshire and Northamptonshire, 42% of the long-term average and below normal for the time of year. A low rainfall total meant that there was a 26.2mm increase in the soil moisture deficit across the area and river flows and groundwater levels continued to decline. Eight of the eleven key river flow sites recorded below normal flows, or lower, over the course of the month. Two groundwater sites are now below normal for the time of year, while levels at Dunholme Road are notably low. Reservoir stocks reduced by an average of 5% and all five sites remain below their normal operating curve as a lack of rain has prevented any recharge.

1.1 Rainfall

September 2026 was the twenty-sixth driest September on record across Lincolnshire and Northamptonshire (LNA), recording an average of 23mm of rain, 42% of the long-term average (LTA). Four of the six hydrological areas recorded below normal rainfall, while Louth Grimsby and Ancholme and Steeping Great Eau and Long Eau (SGELE) recorded notably low rainfall, with SGELE recording the twelfth driest September since records began in 1871. Rainfall totals were between 33% and 53% of the LTA across the six areas.

2026 has been the sixth driest July to September across LNA, since records began in 1871. Exceptionally low rainfall was recorded in three hydrological areas, while the other three recorded notably low rainfall totals, ranging from 46% to 54% of the LTA. South Forty Foot and Hobhole and Upper Welland and Nene both recorded the third driest July to September on record, while it was the Upper Welland and Nene's seventh driest. LNA recorded 89mm of rain across this period, just 51% of the LTA.

Over the past six months, rainfall across LNA has also been scarce. April to September 2026 was the second driest April to September on record and all six hydrological areas recorded exceptionally low rainfall totals. 53% of the LTA rainfall was recorded across LNA over that period. Louth Grimsby and Ancholme and South Forty Foot and Hobhole recorded their second lowest rainfall totals, while it was the third lowest recorded in the Lower Welland and Nene and SGELE.

Despite the previously dry six months observed across LNA, over the past twelve months 645mm of rain has been recorded, on average, 100% of the LTA. All six hydrological areas recorded normal rainfall totals for that period, ranging from 96% in South Forty Foot and

Hobhole to 105% in Louth Grimsby and Ancholme and Witham to Chapel Hill. The comparison between the second driest April to September and a normal rainfall total over twelve months highlights the two extremes experienced over the past year across LNA. An exceptionally wet winter has been followed by one of the direst spring and summers on record.

1.2 Soil moisture deficit and recharge

The soil moisture deficit (SMD) significantly increased from the end of August to the end of September 2026, from 100.8mm to 127mm, and is notably high for the time of year. All six hydrological areas saw a consistent increase in SMD through the month and all areas have an SMD that notably high for the time of year. Despite a uniform trend across LNA, there is a clear east-west divide in SMD levels. The three hydrological areas to the west have an average SMD of 119mm, whereas the three hydrological areas to the east have an average SMD of 143mm, a difference of 24mm. All six hydrological areas ended September with an SMD 26mm to 50mm greater than their respective LTA.

1.3 River flows

Despite a small recovery at the end of August from some key river flow sites, the low rainfall totals in September meant flows quickly fell again. Eight of the eleven sites with data ended September with a monthly mean flow below normal or lower, with three of those sites recording notably low flows. Flows ranged from 78% of the LTA at Geldhart's Mill on the River Nene to just 21% of the LTA at Kate's Bridge and King Street on the River Glen. Only Louth on the River Lud and Geldhart's Mill and Upton Mill on the River Nene had normal river flow for the time of year. Due to data quality issues, there is no flow data available for Rase Bishopbridge for September 2026.

1.4 Groundwater levels

Groundwater levels across LNA continue to decline as a lack of rainfall continues to restrict recharge. Six of the nine key groundwater sites have recorded normal levels, or above, for the time of year, with Barton, Horkstow Road remaining above normal. However, limestone sites in the centre of the area are seeing low groundwater levels. Leasingham Exploratory and Grange Farm are both below normal for the time of year, and Dunholme Road is notably low. There was no data available in September at Castlethorpe Bridge.

1.5 Reservoir stocks

Reservoir stocks across LNA were down 5% on average from the beginning of September as demand remained high and the lack of rain gave little recharge. Stock levels vary from Covenham at 81% full to Hollowell at 53%, down 8% over the month. The five reservoirs are 66.4% full, on average. All reservoirs are below their respective target curves for the time of year, however all remain above drought permit trigger levels.

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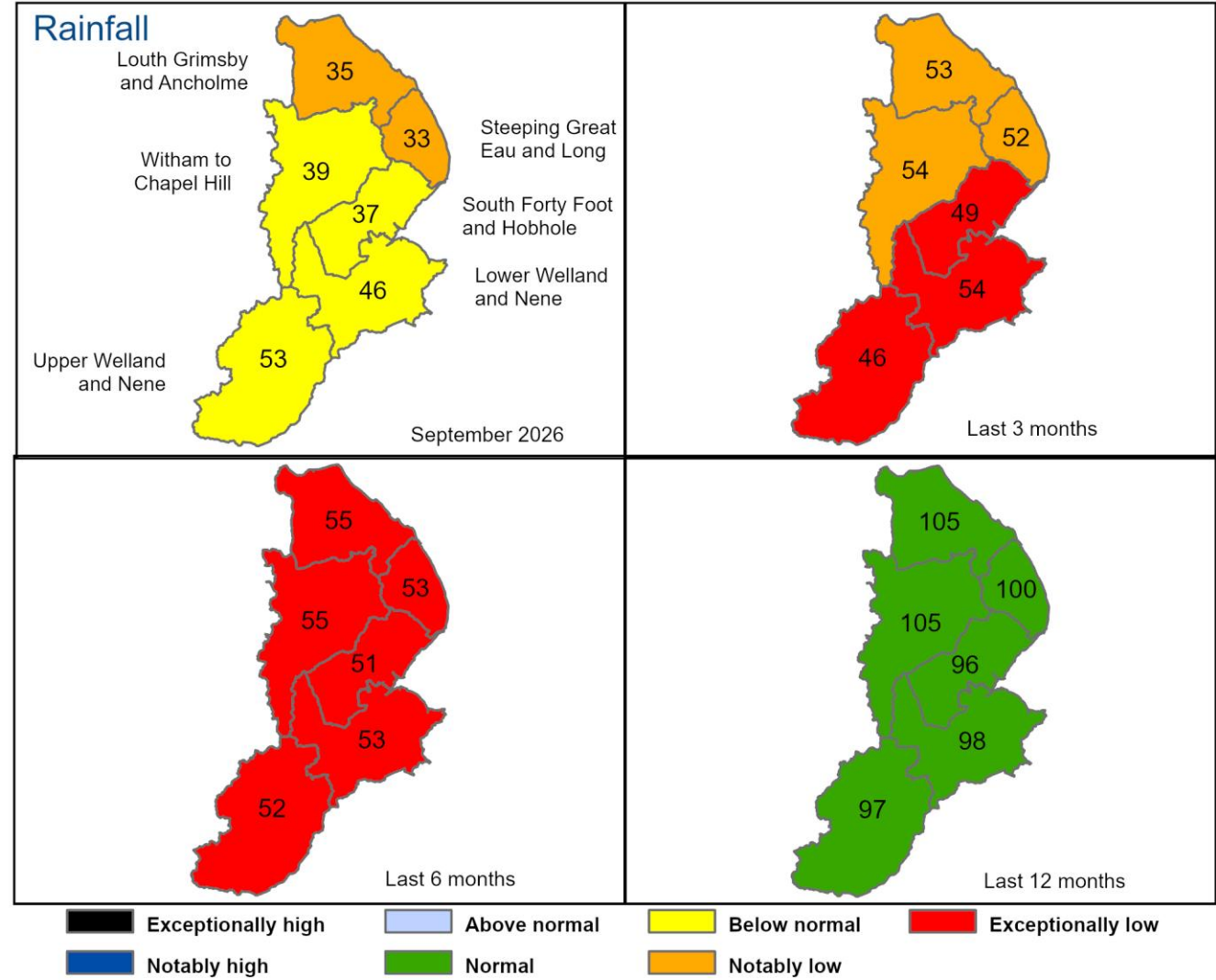
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2 Rainfall

2.1 Rainfall map

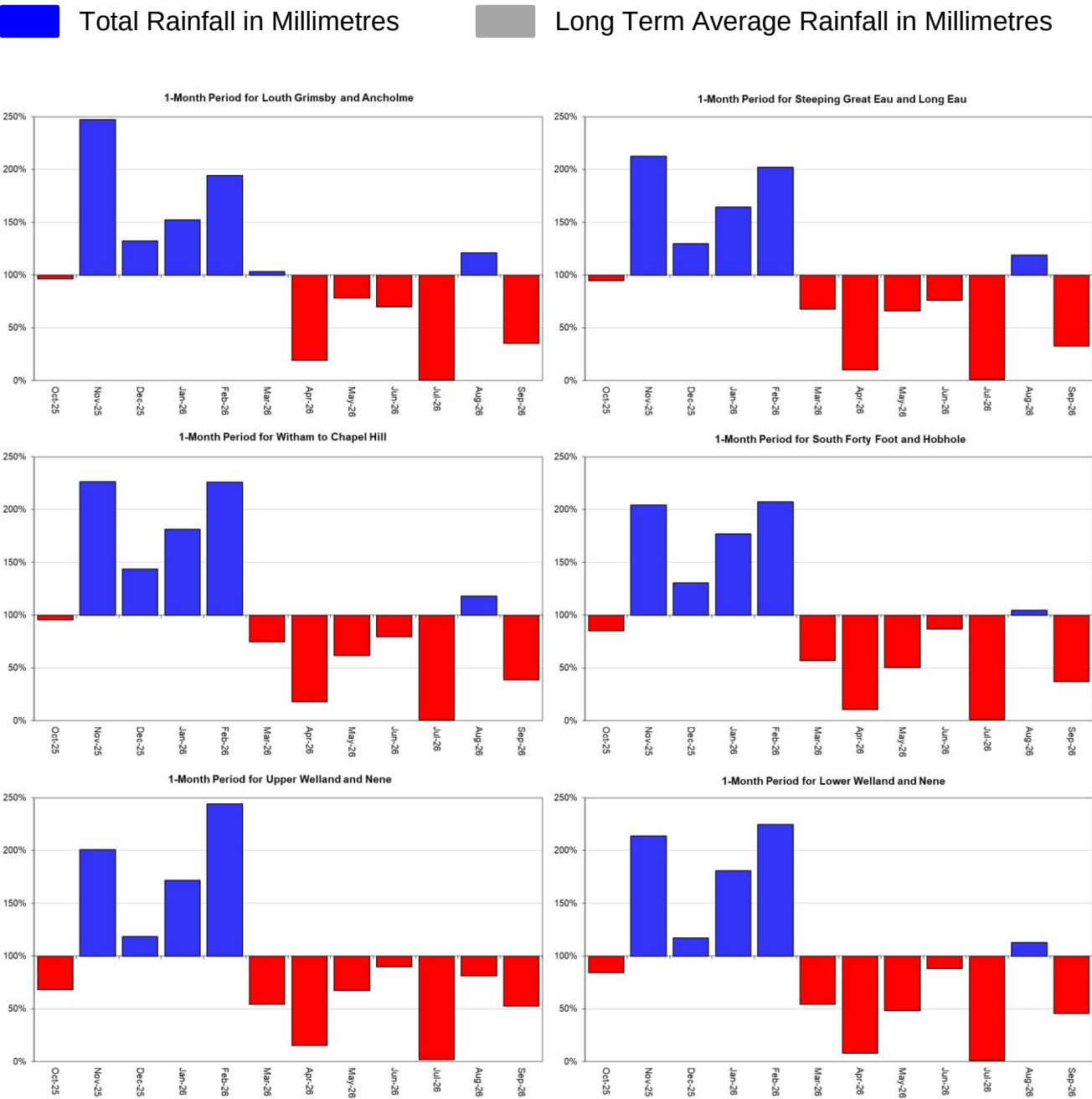
Figure 2.1: Total rainfall for hydrological areas across Lincolnshire and Northamptonshire, expressed as a percentage of long term average rainfall for the current month (up to 30 September 2026), the last 3 months, the last 6 months, and the last 12 months. Category classes are based on an analysis of respective historic totals. Table available in the appendices with detailed information.



HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges
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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 each hydrological area.

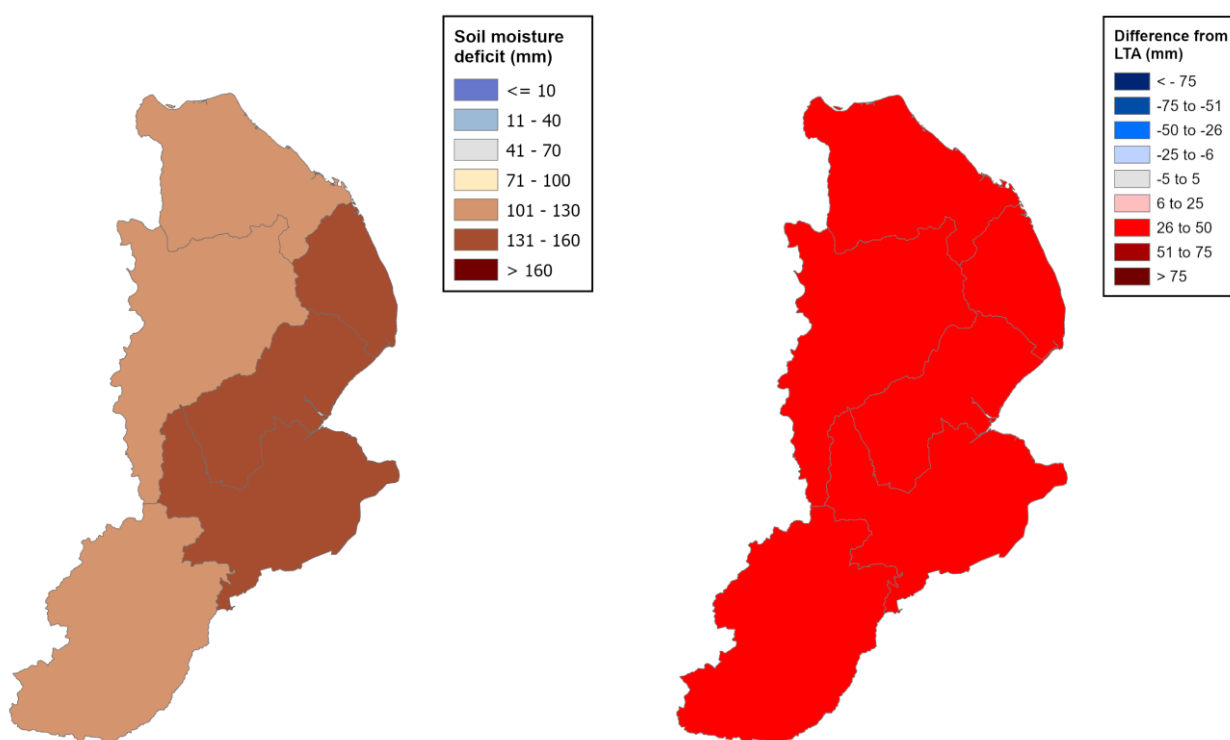


HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges
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3 Soil moisture deficit

3.1 Soil moisture deficit map

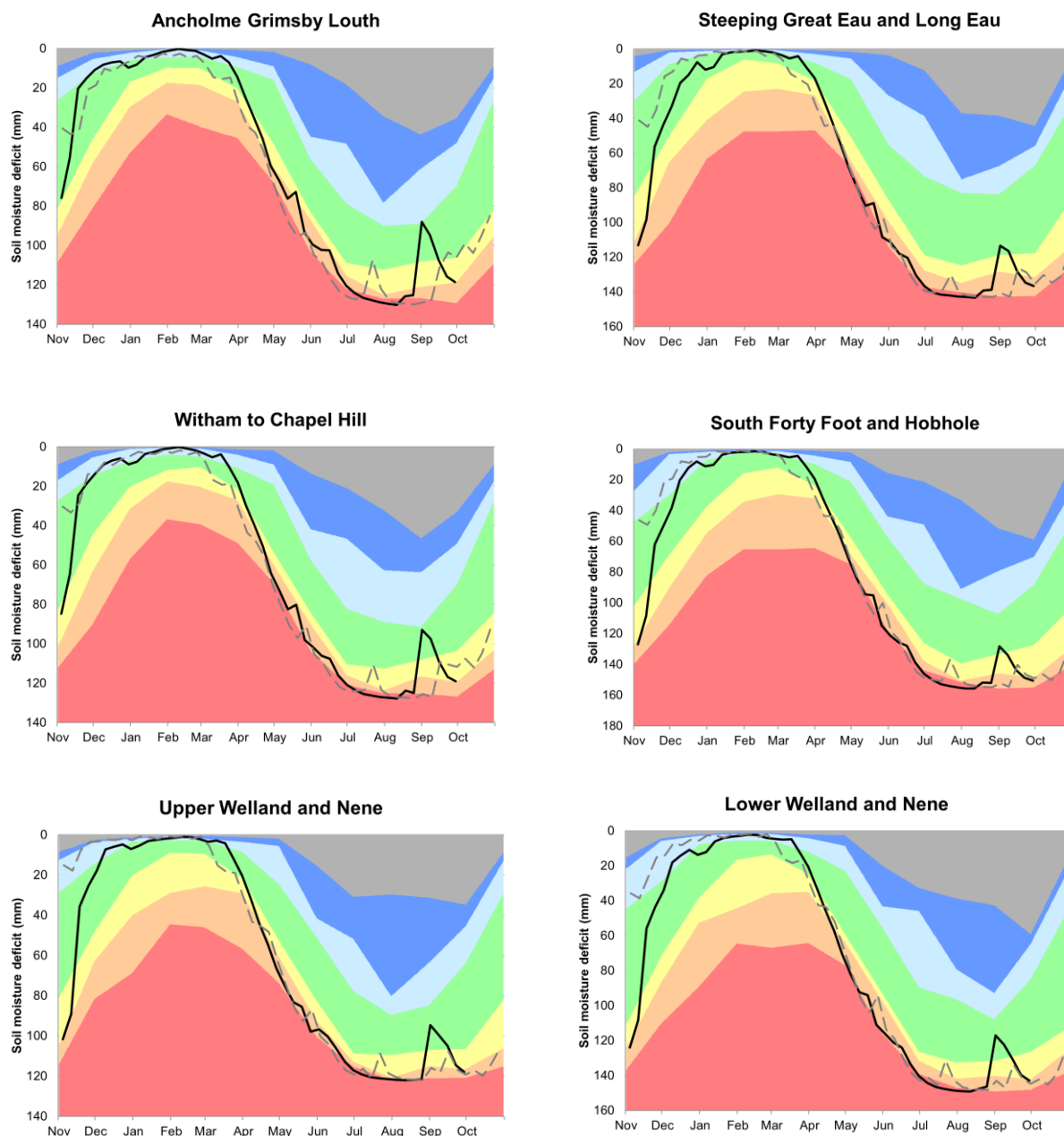
Figure 3.1: Left map shows Soil moisture deficits for weeks ending 30 September 2026. Right map shows the difference (mm) of the actual soil moisture deficit from the 1991 to 2020 long term average soil moisture deficits. MORECS data for real land use.



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3.2 Soil moisture deficit charts

Figure 3.2: Latest soil moisture deficit compared to previous year, maximum, minimum, and 1991 to 2020 long term average. Weekly MORECS data for real land use.

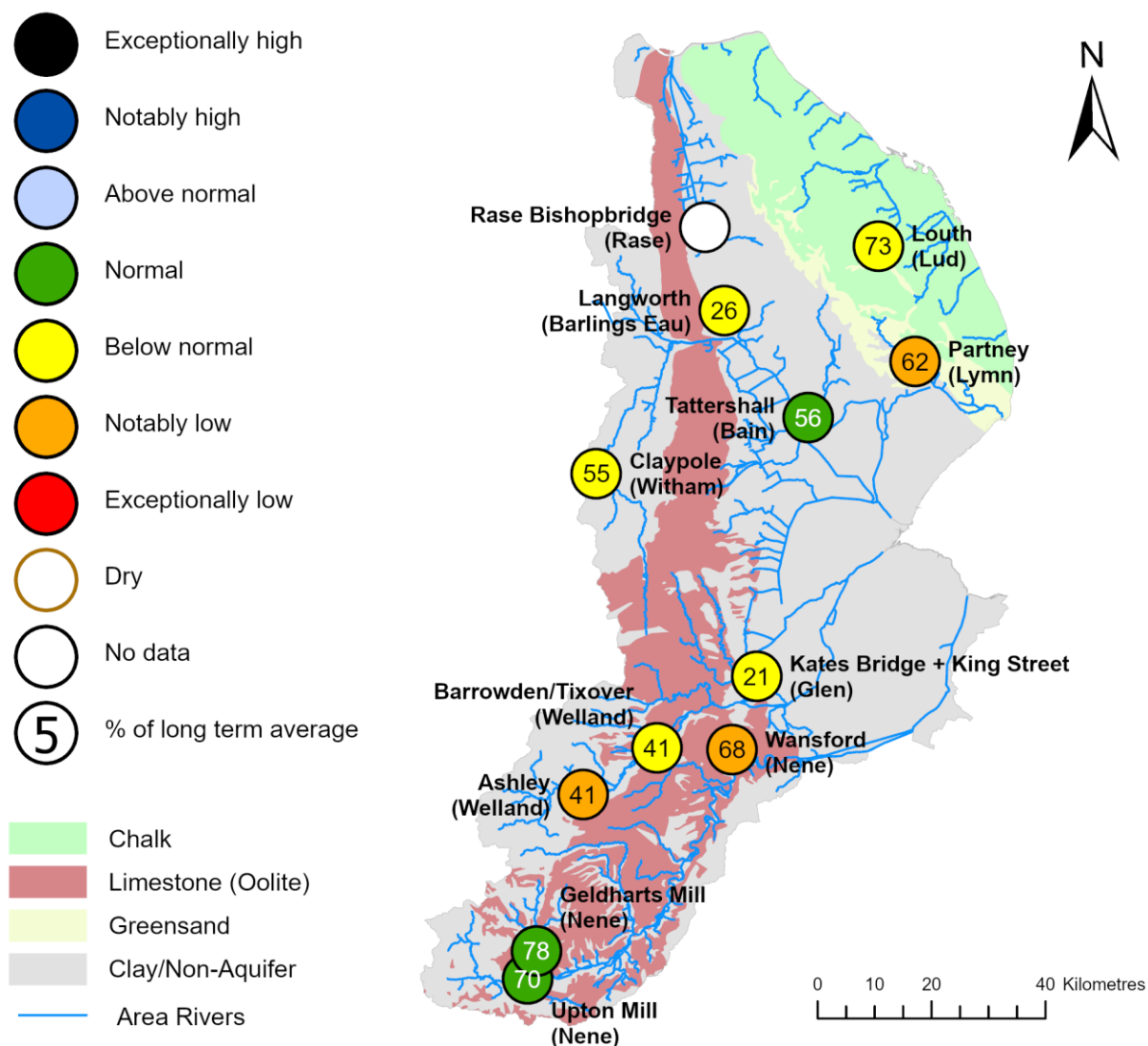


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4 River flows

4.1 River flows map

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

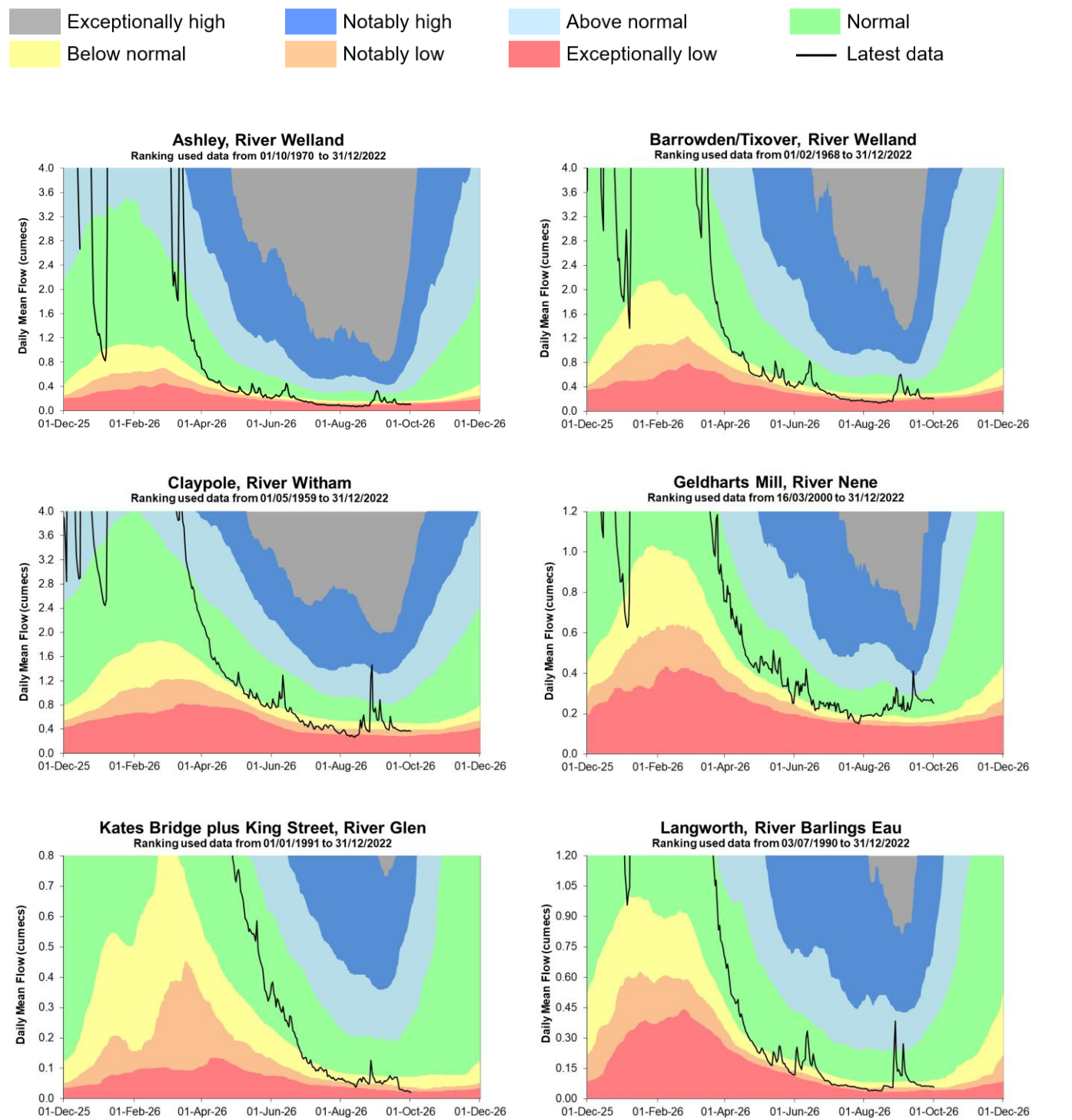


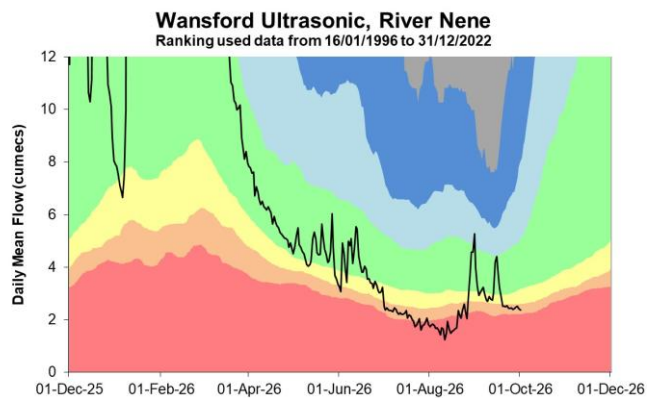
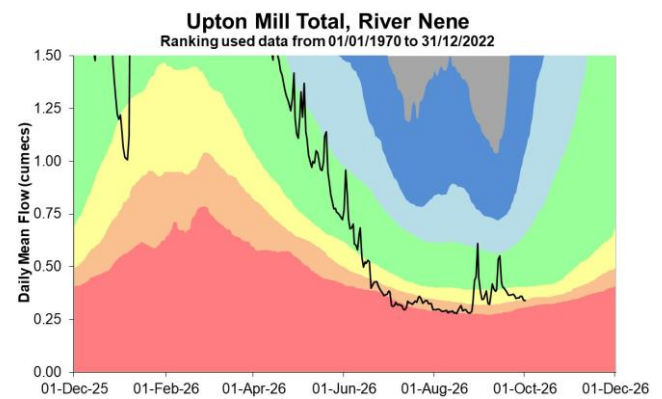
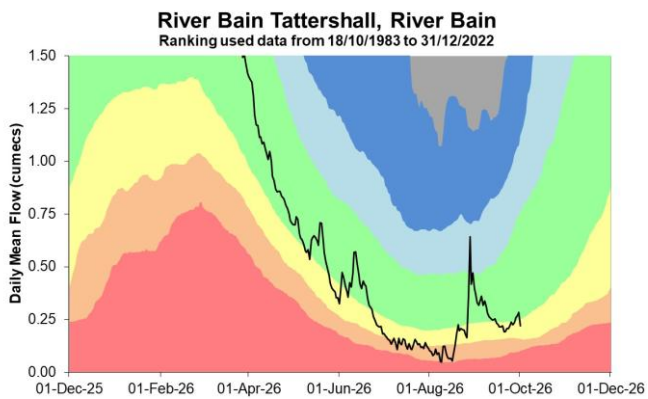
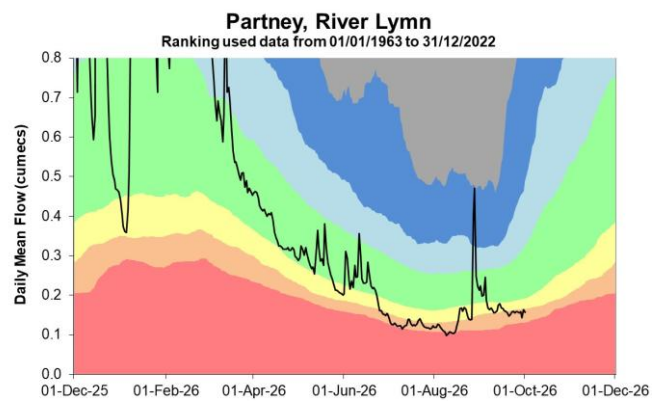
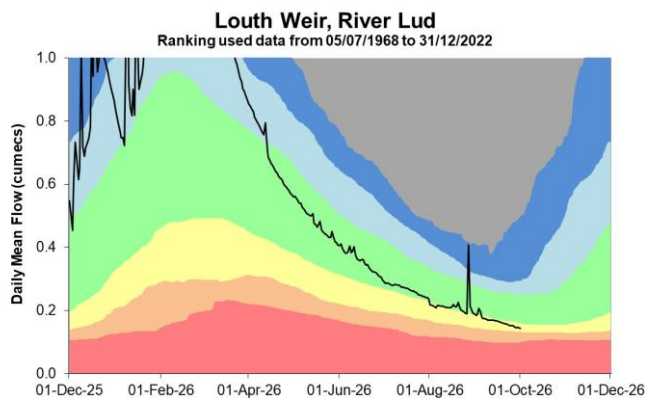
Note: Ashley (Welland) data modelled due to data quality issues at the gauge

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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.





Note: No data for Rase Bishopbridge during September 2026 due to data quality issues.

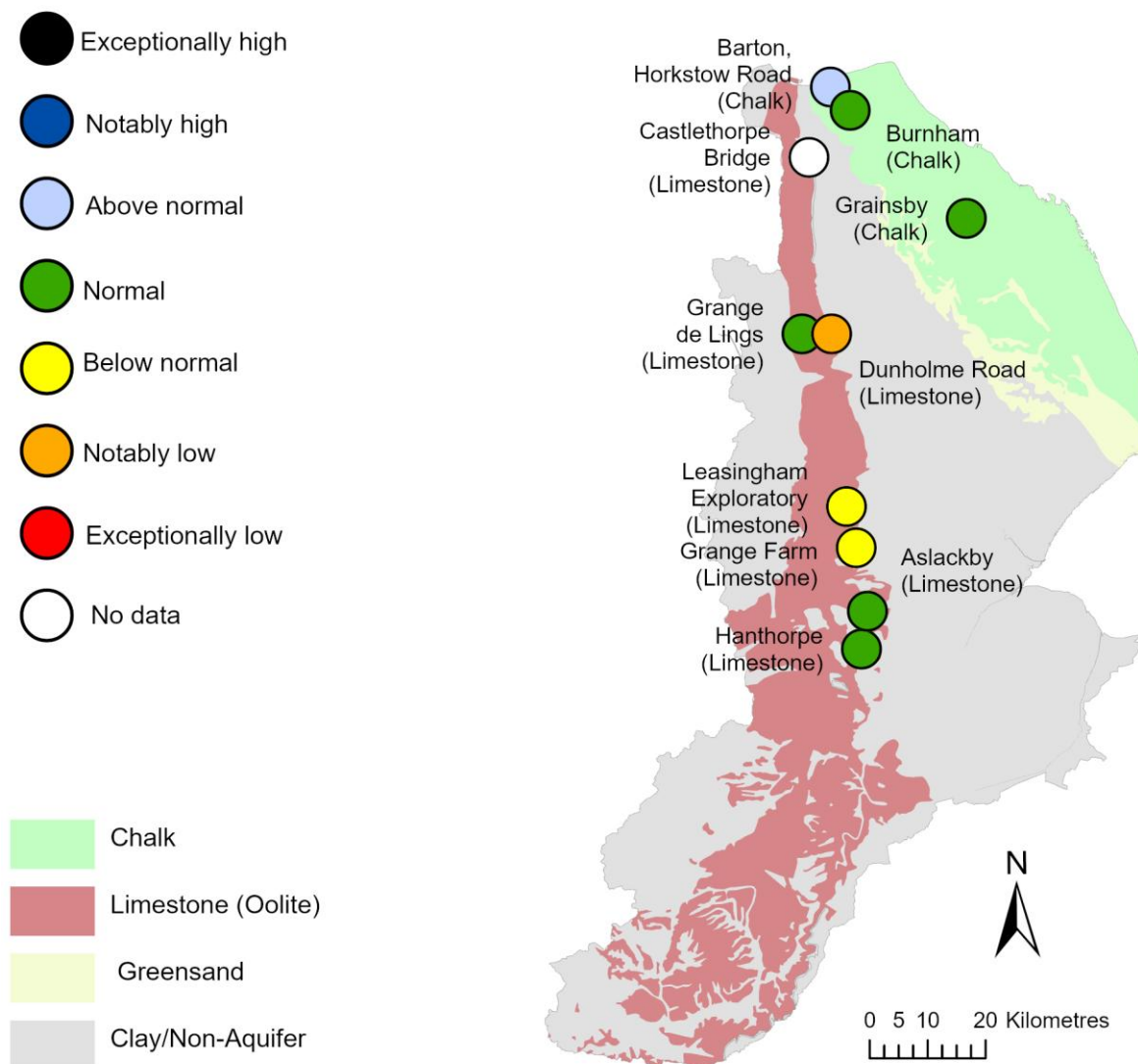
Note: Ashley (Welland) data modelled due to data quality issues at the gauge

Source: Environment Agency, 2026.

5 Groundwater levels

5.1 Groundwater levels map

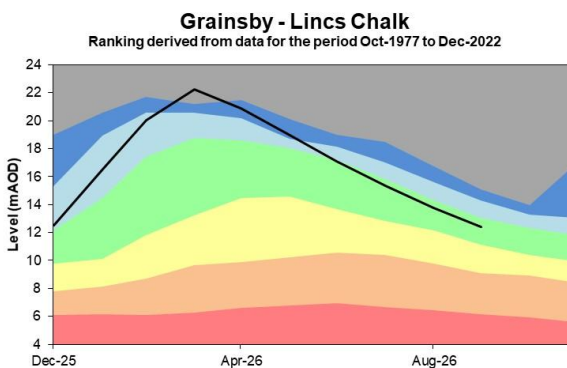
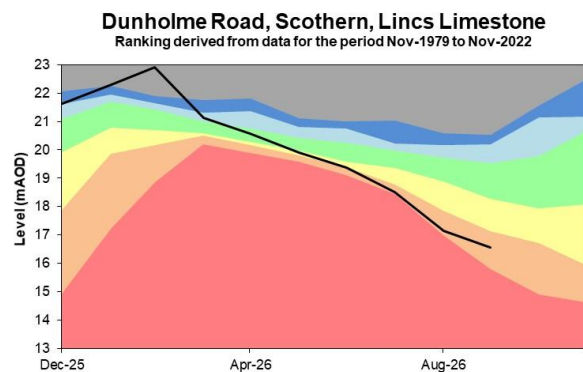
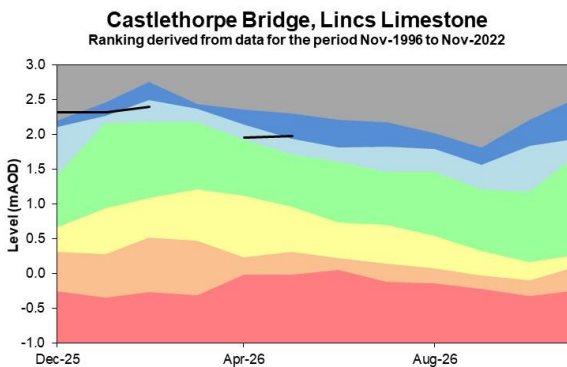
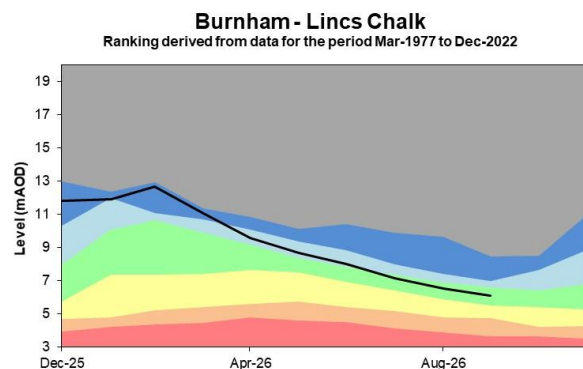
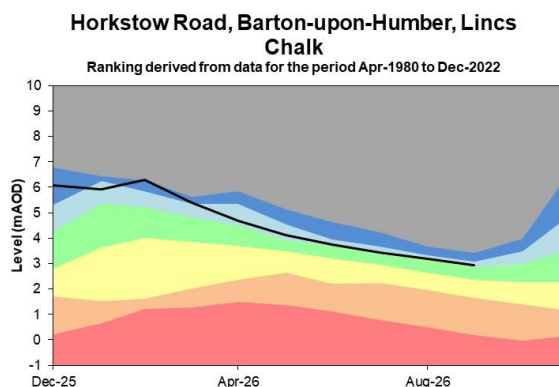
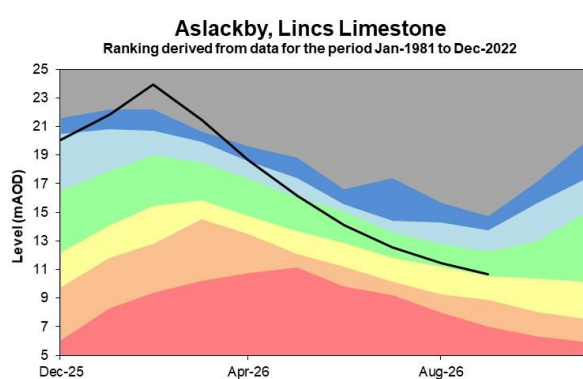
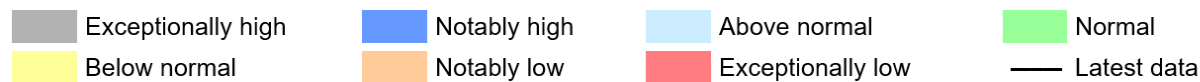
Figure 5.1: Groundwater levels for indicator sites at the end of September 2026, classed relative to an analysis of respective historic September levels. Table available in the appendices with detailed information.

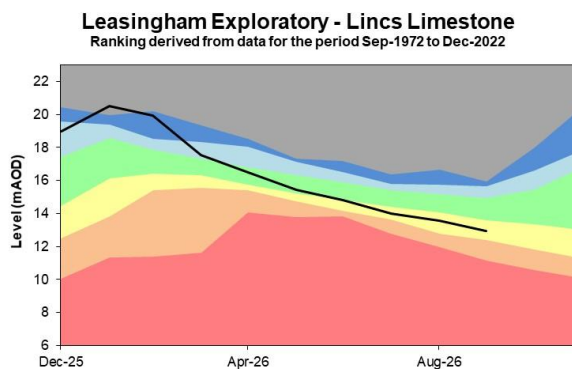
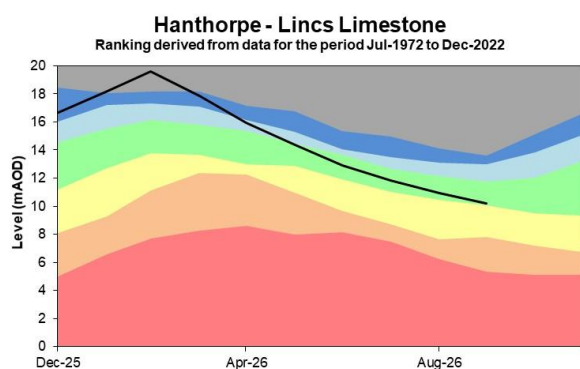
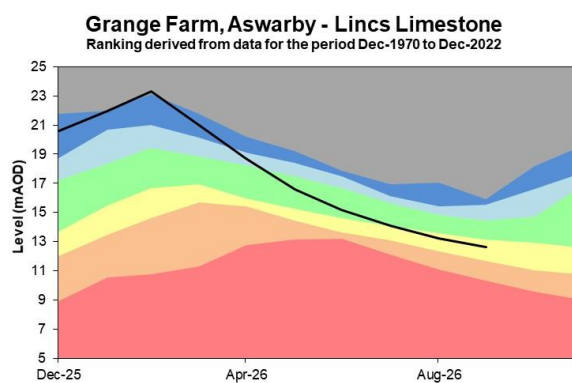
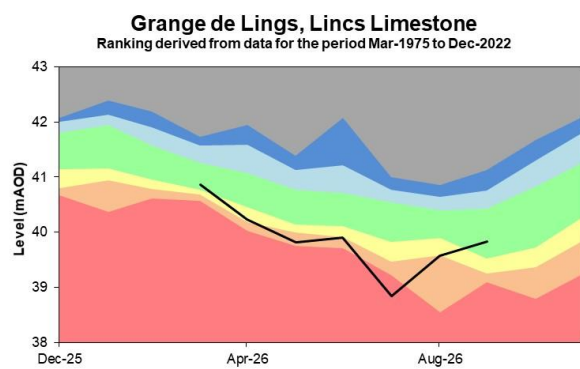


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5.2 Groundwater level charts

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 month levels and long term maximum and minimum levels.

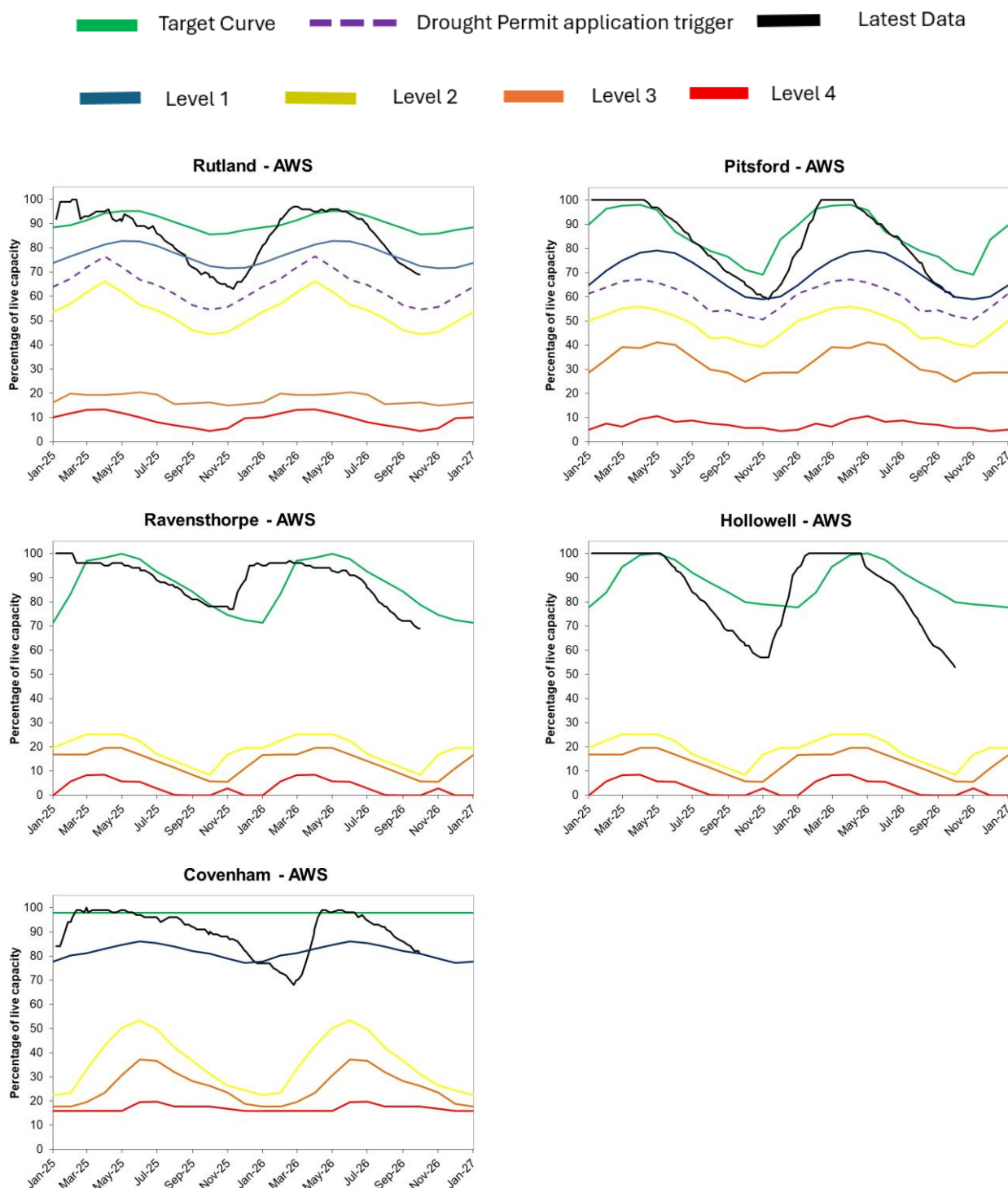




Source: Environment Agency, 2026.

6 Reservoir stocks

Figure 6.1: End of month regional reservoir stocks compared to the normal operating curve and drought curves.



Source: Anglian Water. For more information on Anglian Water's reservoir level curves, please see Appendix 4 in their [Drought Plan](#).

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	Sep 2026 rainfall % of long term average 1991 to 2020	Sep 2026 band	Jul 2026 to September cumulative band	Apr 2026 to September cumulative band	Oct 2025 to September cumulative band
Louth Grimsby And Ancholme	35	Notably Low	Notably low	Exceptionally low	Normal
Lower Welland And Nene	46	Below Normal	Exceptionally low	Exceptionally low	Normal
South Forty Foot And Hobhole	37	Below Normal	Exceptionally low	Exceptionally low	Normal
Steeping Great Eau And Long Eau	33	Notably Low	Notably low	Exceptionally low	Normal
Upper Welland And Nene	53	Below Normal	Exceptionally low	Exceptionally low	Normal
Witham To Chapel Hill	39	Below Normal	Notably low	Exceptionally low	Normal

8.2 River flows table

Site name	River	Catchment	Sep 2026 band	Aug 2026 band
Ashley	Welland Mkt.harb-rockinghm	Welland Rockingham	Normal	Above normal
Barrowden/tixover	Welland (rockingham To Stamford)	Welland Stamford	Below normal	Notably low
Claypole	Upper Witham	Witham Bargate Upper	Below normal	Below normal
Geldharts Mill	Nene (brampton Branch)	Nene Brampton Bridge	Normal	Below normal
Kates Bridge Plus King Street	Glen (an)	Welland and Glen	Below normal	Below normal
Langworth	Barlings Eau	Barlings Eau	Below normal	Notably low
Louth Weir	Lud	Louth Canal	Below normal	Normal
Partney	Lymn & Steeping	Lymn Steeping	Notably low	Below normal
Rase Bishopbridge	Ancholme	Ancholme W Mid		Below normal
River Bain Tattershall	Bain	Bain	Normal	Below normal
Upton Mill Total	Nene (kislingbury Branch)	Nene Kislingbry Bridge	Normal	Below normal
Wansford Combined	Nene (wollaston To Wansford)	Nene Wansford	Notably low	Exceptionally low

8.3 Groundwater table

Site name	Aquifer	End of Sep 2026 band	End of Aug 2026 band
Aslackby	Limestone (cornbrash Formation)	Normal	Normal
Barton-upon-humber	Grimsby Ancholme Louth Chalk	Above normal	Above normal
Burnham	Grimsby Ancholme Louth Chalk	Normal	Normal
Castlethorpe Bridge	Grimsby Ancholme Louth Limestone		
Dunholme Road, Scothern	Grimsby Ancholme Louth Limestone	Notably low	Notably low
Grainsby	Grimsby Ancholme Louth Chalk	Normal	Normal
Grange De Lings	Grimsby Ancholme Louth Limestone	Normal	Notably low
Grange Farm, Aswarby	Limestone (mudstone - Peterborough Member)	Below normal	Below normal
Hanthorpe	Limestone (cornbrash Formation)	Normal	Normal
Leasingham Exploratory	Limestone (rutland Formation)	Below normal	Below normal