Monthly water situation report: Lincolnshire and Northamptonshire Area

1 Summary - November 2025

November 2025 was the wettest November on record, across Lincolnshire and Northamptonshire, with 133mm of precipitation averaged across the area, 218% of the long-term average. The high precipitation totals allowed for a significant reduction in the soil moisture deficit, from an area average of 106mm at the end of October to 20.9mm by the end of November. River flows also recovered and ranged from 78% to 244% of the long-term average, across the twelve indicator sites, while there was also significant recovery in groundwater levels, with only Grainsby showing levels below normal. Reservoir stocks have begun to recover, however all by Ravensthorpe remain below their normal operating curve.

1.1 Rainfall

Across Lincolnshire and Northamptonshire [LNA], November 2025 recorded an average precipitation of 133mm, equivalent to 218% of the long-term average [LTA]. This precipitation total was exceptionally high for the time of year and the wettest November on record, dating back to 1871. Between the six hydrological catchments, precipitation totals ranged from 115.8mm, in South Forty Foot and Hobhole, to 158.9mm, in Louth Grimsby and Ancholme. All six hydrological areas recorded exceptionally high precipitation totals.

Autumn 2025 has been characterised by very wet weather across LNA as the last three months' precipitation shows as it has been the 14th wettest September to November on record. Four of the six hydrological sites have seen notably high precipitation totals, while the Upper Welland and Nene saw the lowest total, but still 123% of the LTA, and the Louth Grimsby and Ancholme experienced 167% of the LTA precipitation, making it the fifth wettest September to November recorded for the hydrological zone.

The wet recent months have been able to mask the dry first half of the year when looking at longer term precipitation trends. The past six months' precipitation totals are 97% of the LTA across LNA, with all hydrological zones receiving normal volumes of precipitation, or above. However, over the past 12-month period, the influence of the dry end to 2024 and start to 2025 can be seen in the precipitation totals across LNA. The area precipitation for the last year has been 89% of the LTA and both the Upper and Lower Welland and Nene have seen below normal precipitation over that period.

1.2 Soil moisture deficit and recharge

The soil moisture deficit [SMD] across LNA dramatically reduced in response to the high precipitation totals throughout November 2025. At the end of October, the SMD averaged at 106mm, which meant the area SMD was between 26mm and 50mm greater than the LTA. However, the SMD in the last week of November had reduced to 20.9mm and was between 6mm and 25mm above the LTA SMD in five hydrological areas, while in Steeping Great and Long the SMD was between 5mm above and 5mm below the LTA. The high precipitation totals have enabled a reversal of SMD conditions over the course of the past month.

1.3 River flows

The high precipitation totals across LNA also resulted in high river flows in the twelve indicator sites across the area. Flows ranged from 78% of the LTA on the Nene at Geldharts Mill to 244% of the LTA on the Welland at Ashley. All twelve indicator sites saw flows normal or above, with three above normal and three, the Barlings Eau at Langworth and the Welland at Ashley and Barrowden/Tixover, recording notably high flows during November. This is in contrast to October which saw one site experiencing notably low flows and four sites experiencing below normal flows for the time of year.

1.4 Groundwater levels

Groundwater levels across LNA saw strong recovery over the course of the month with only one site, Grainsby, not seeing an improvement and remaining below normal. In contrast, four sites recorded normal groundwater levels, two sites were above normal, Barton (Horkstow Road) and Burnham, one site was notably high, Dunholme Road, and two sites recorded exceptionally high groundwater levels, Castlethorpe Bridge and Grange de Lings.

1.5 Reservoir stocks

The high precipitation and river flow has also enabled some recovery in the reservoir stocks towards their normal operating curves; however, all reservoirs in LNA remained below their normal operating curve, with the exception of Ravensthorpe. Rutland remained below Level 1, categorised as demand exceeding abstraction potential, however it remains above drought alert levels.

1.6 Environmental impact

The Trent-Witham-Ancholme transfer scheme, as well as the Gwash-Glen transfer and the Slea Augmentation schemes, have now all been turned off in response to the high rainfall recorded across the month of November.

1.7 Forward look

1.7.1 Probabilistic ensemble projections for river flows at key sites

December 2025: Flow sites in the north of LNA are likely to experience normal flows or above, while rivers towards the south are likely to be below normal or above.

March 2026: Flow sites in LNA are likely to experience normal flows or above.

1.7.2 Probabilistic ensemble projections for groundwater levels in key aquifers

March 2026: Groundwater levels across LNA are likely to be normal or above, except for Grainsby which is likely to be below normal or above.

September 2026: Groundwater levels across LNA are likely to be notably low or above, although the forecasting is less conclusive.

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*[SMD]:soil moisture deficits

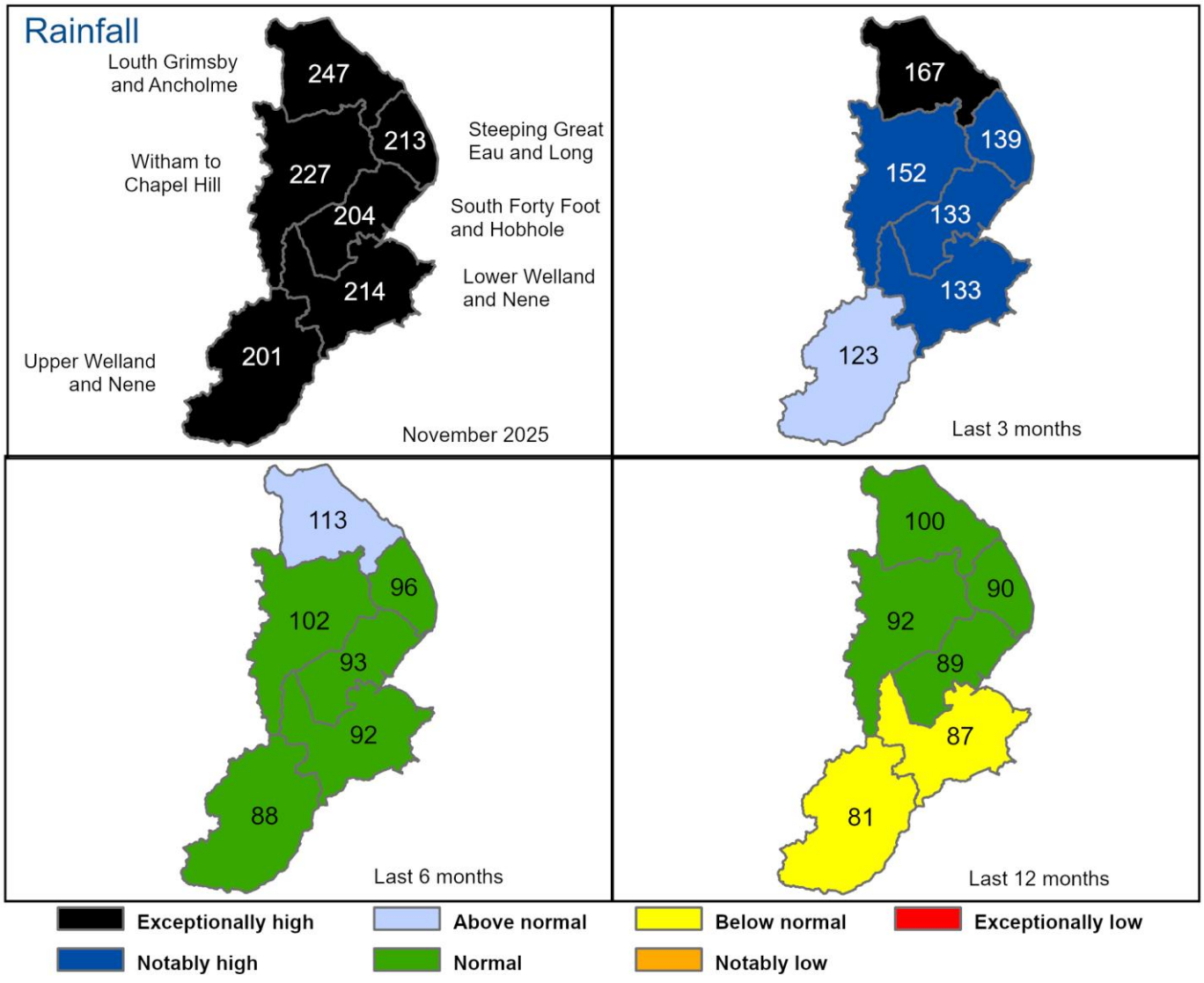
*[LTA]: long term average

Contact Details: 03708 506 506

2 Rainfall

2.1 Rainfall map

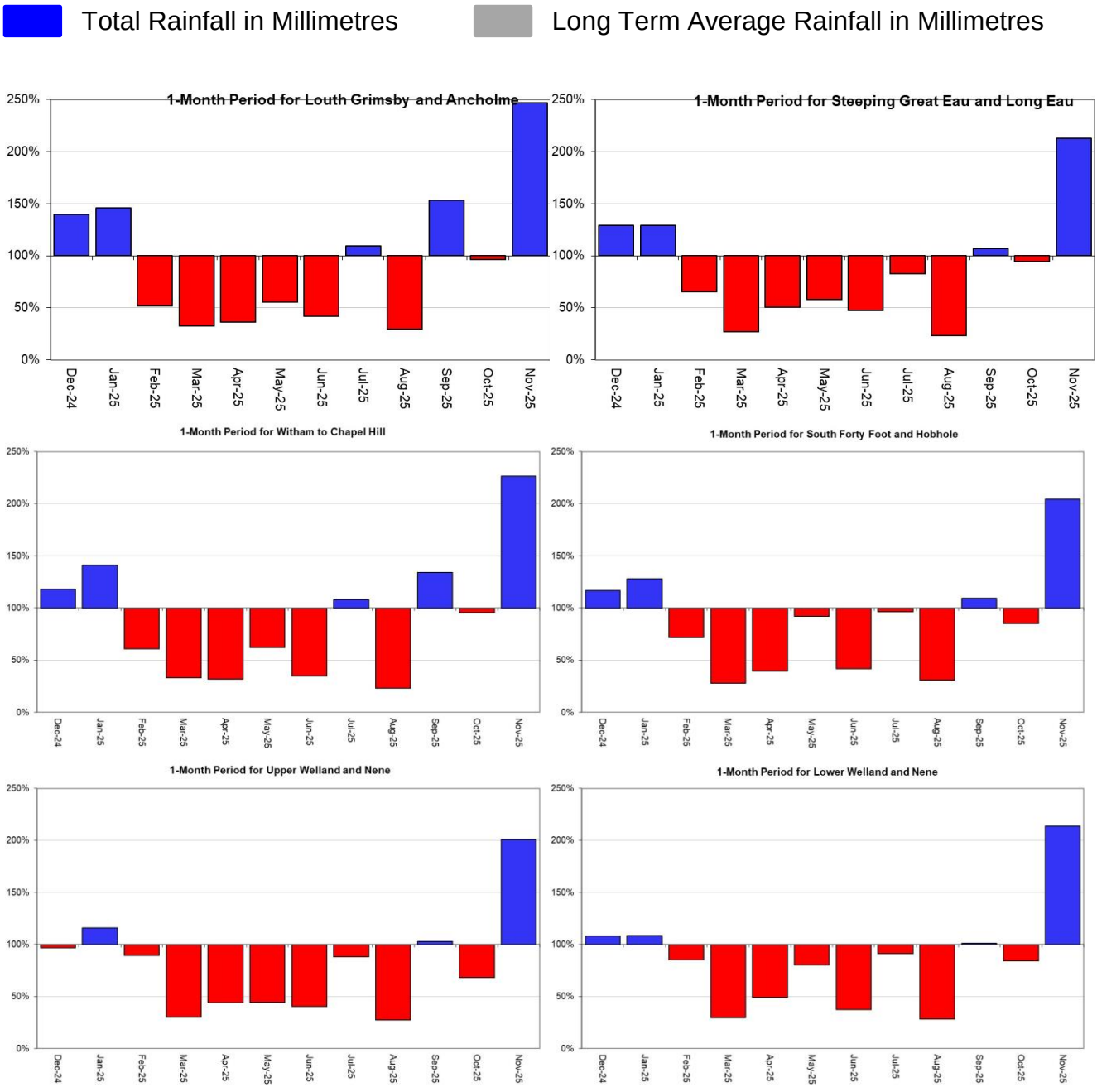
Figure 2.1: Total rainfall for hydrological areas across Lincolnshire and Northamptonshire, expressed as a percentage of long term average rainfall for the current month (up to 30 November 2025), the last 3 months, the last 6 months, and the last 12 months. Category classes are based on an analysis of 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 (Source: Met Office. Crown copyright, 2025). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. Crown copyright. © Ordnance Survey Crown Copyright and Database Rights (2025) AC0000807064.

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 region and for England.

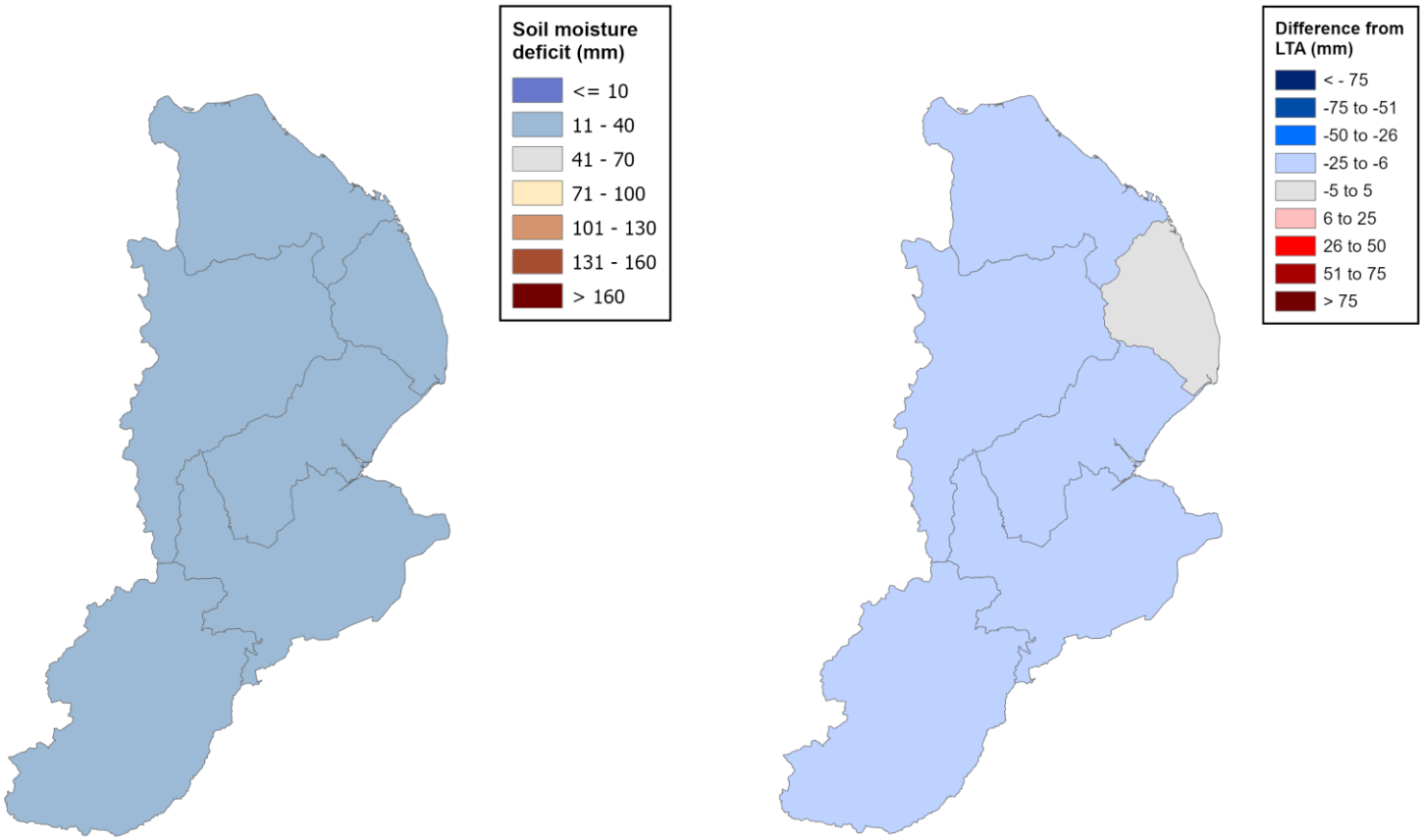


HadUK rainfall data. (Source: Met Office. Crown copyright, 2025).

3 Soil moisture deficit

3.1 Soil moisture deficit map

Figure 3.1:Left map shows Soil moisture deficits for weeks ending 30 November 2025. 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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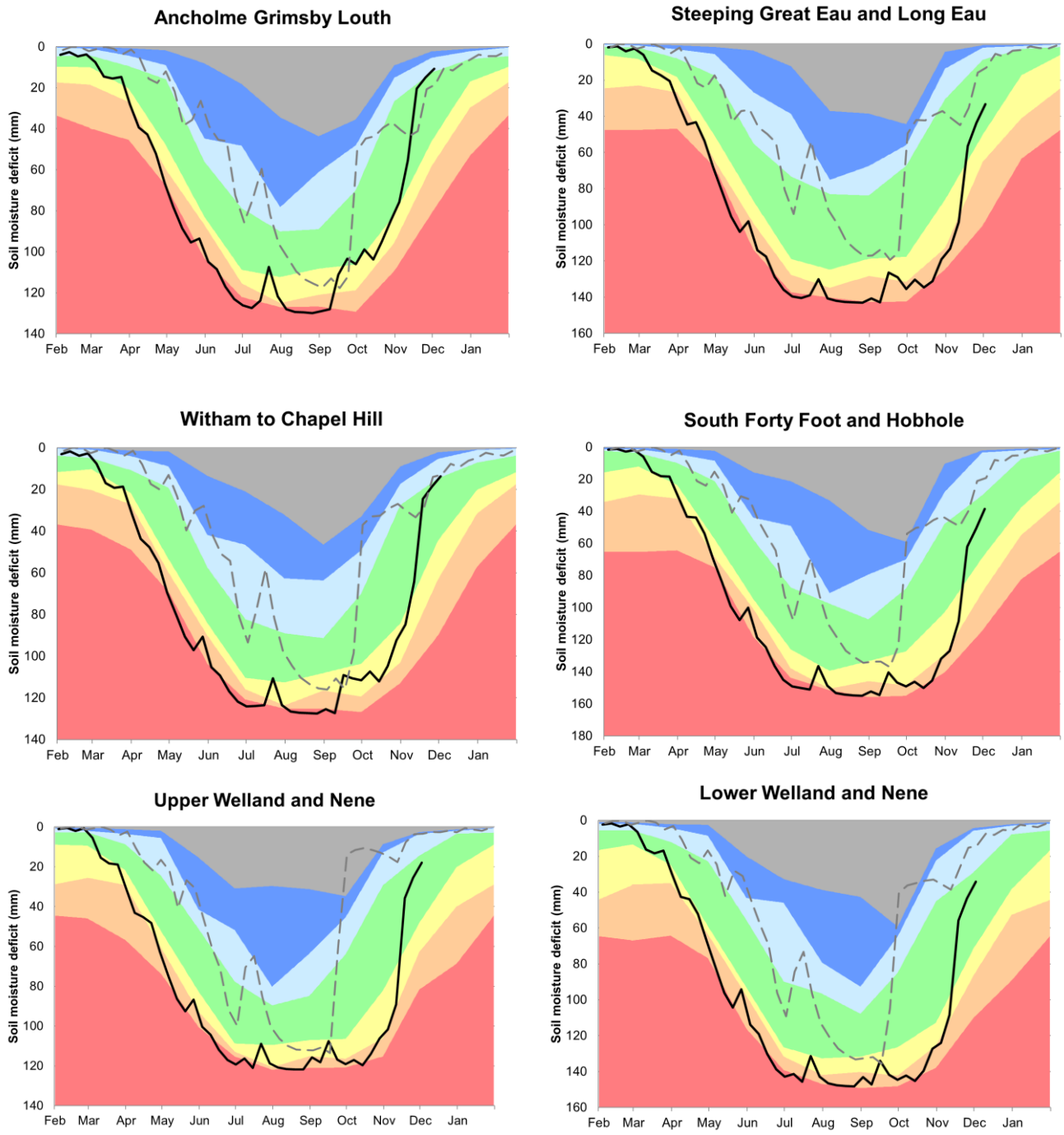
3.2 Soil moisture deficit charts

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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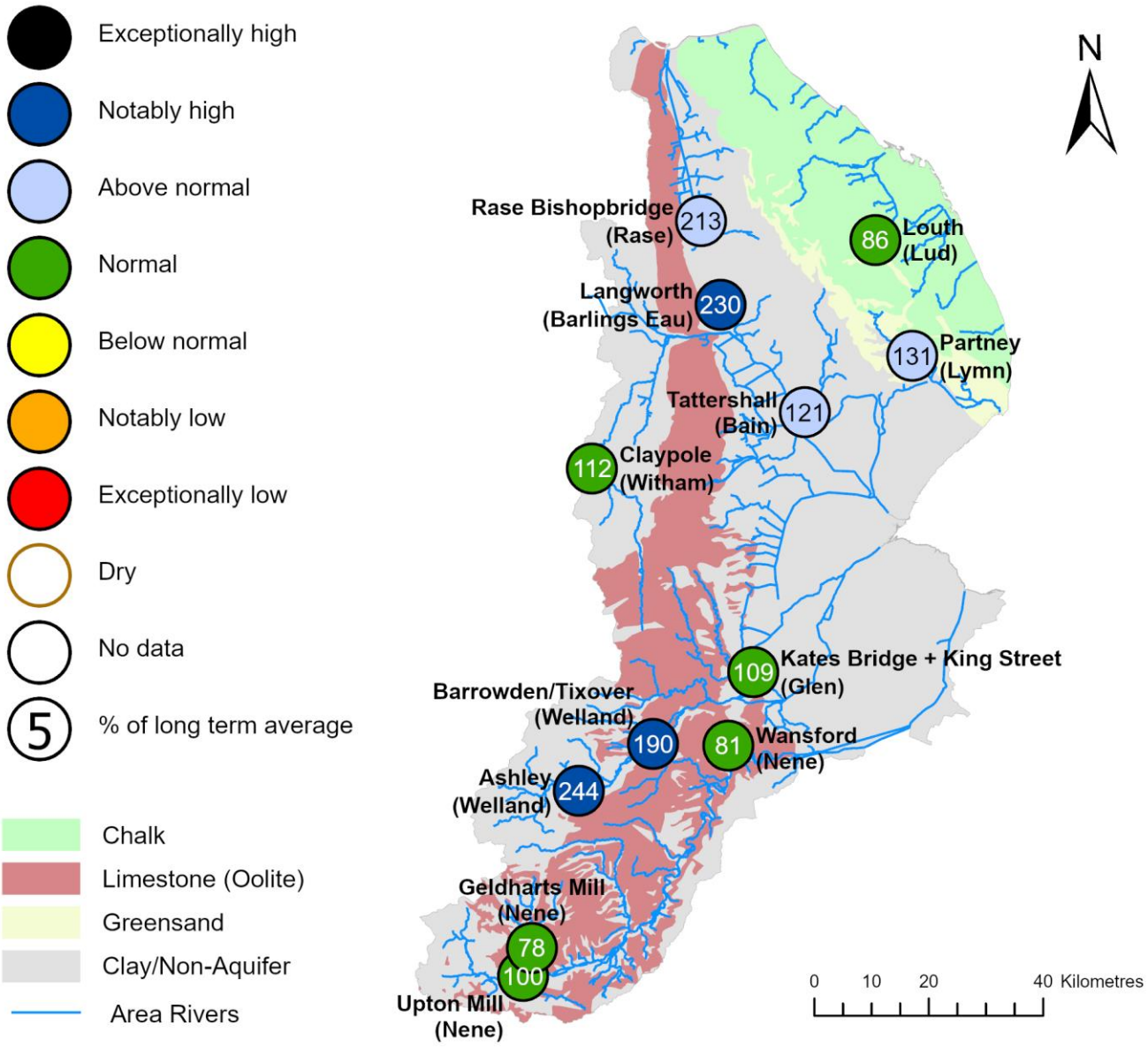
4 River flows

4.1 River flows map

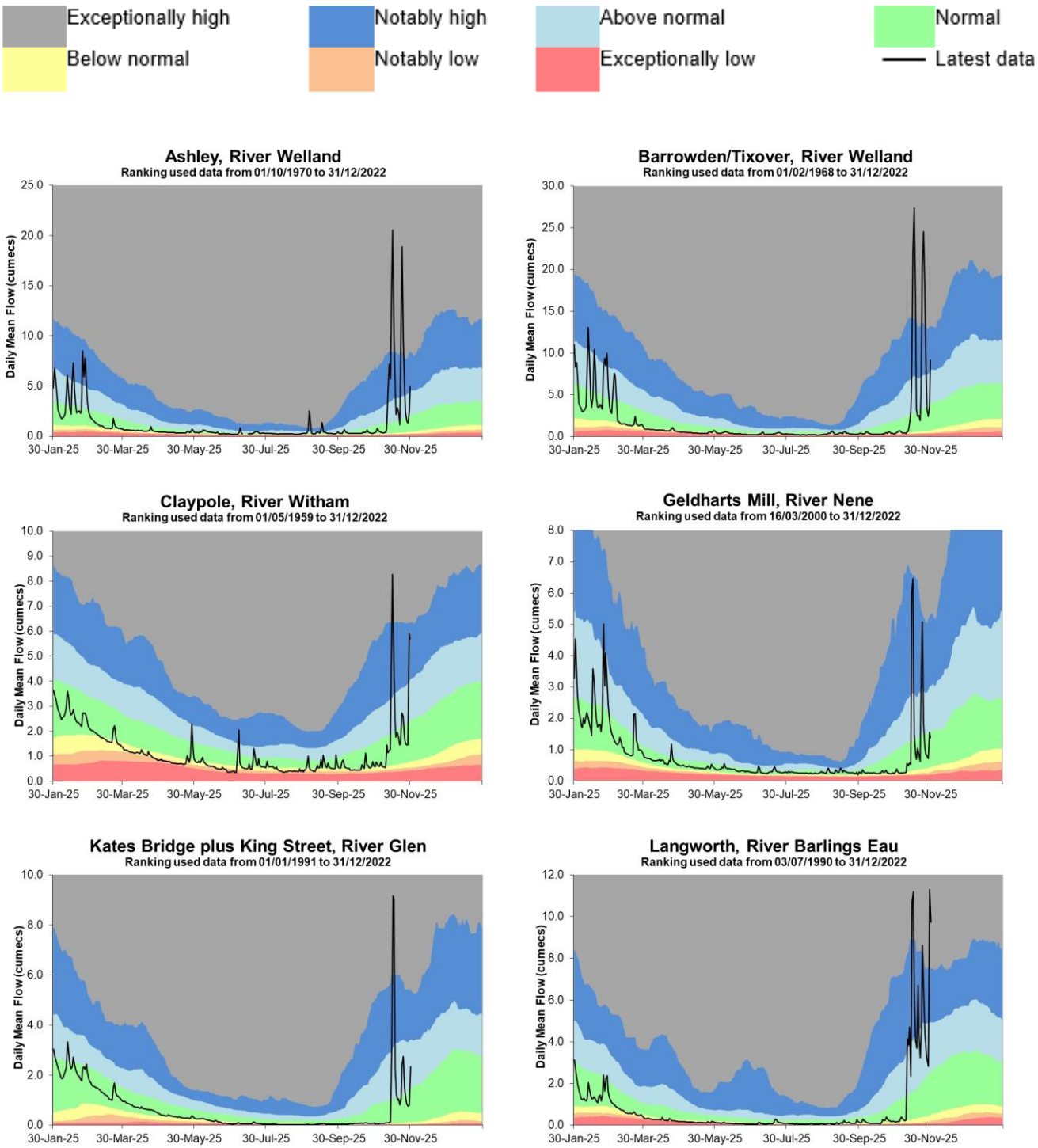
Figure 4.1: Monthly mean river flow for indicator sites for November 2025, expressed as a percentage of the respective long term average and classed relative to an analysis of historic November monthly means Table available in the appendices with detailed information.

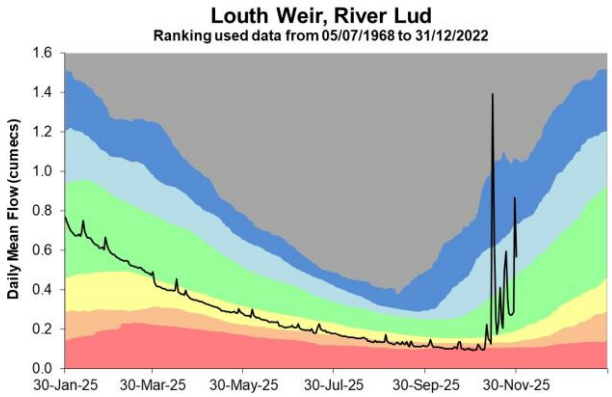


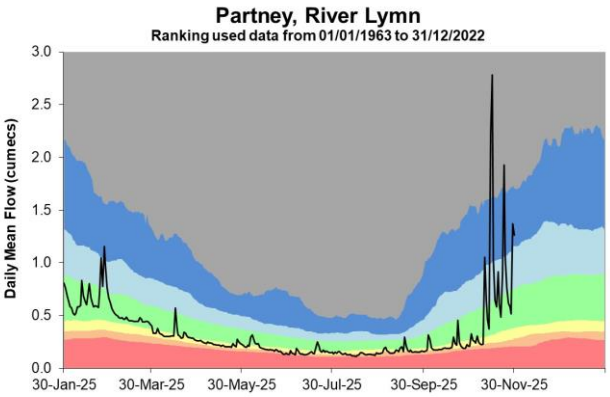
(Source: Environment Agency). Crown copyright. © Ordnance Survey Crown Copyright and Database Rights (2025) AC0000807064.

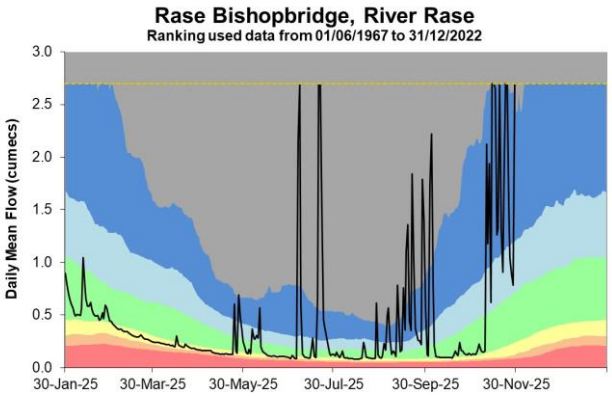
4.2 River flow charts

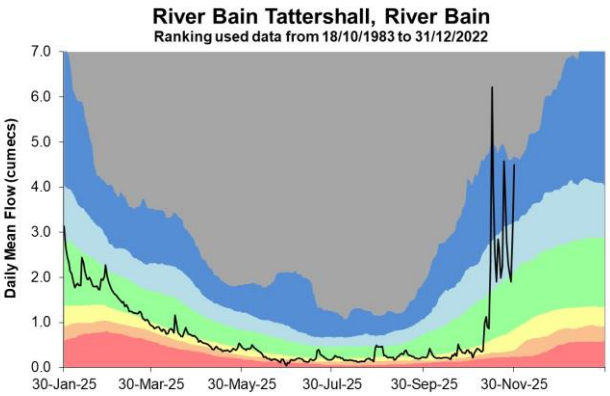
Figure 4.2: Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.

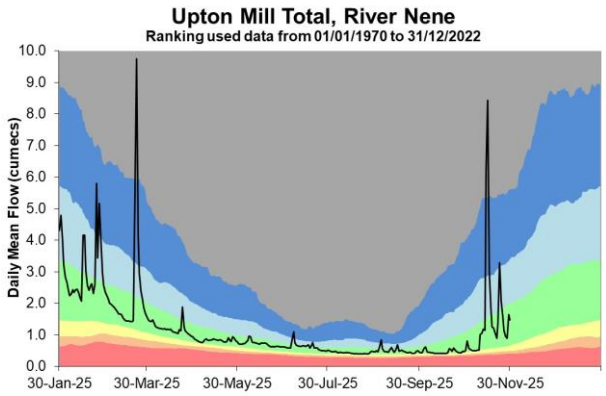


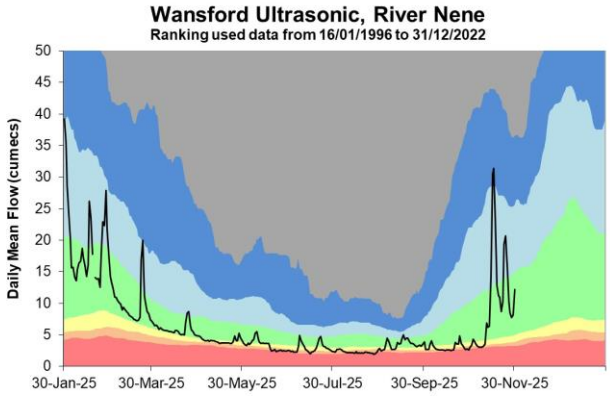










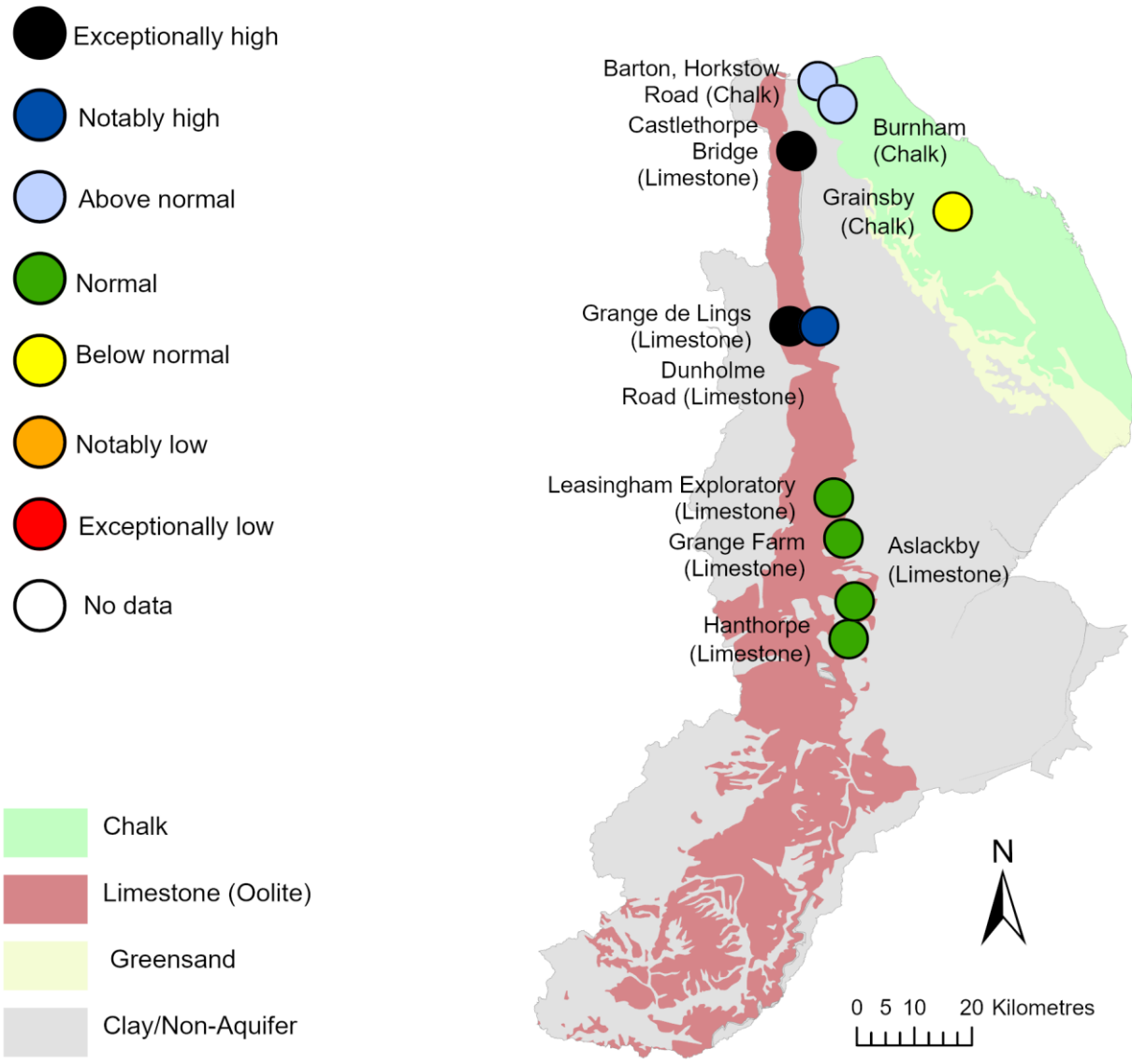


Source: Environment Agency.

5 Groundwater levels

5.1 Groundwater levels map

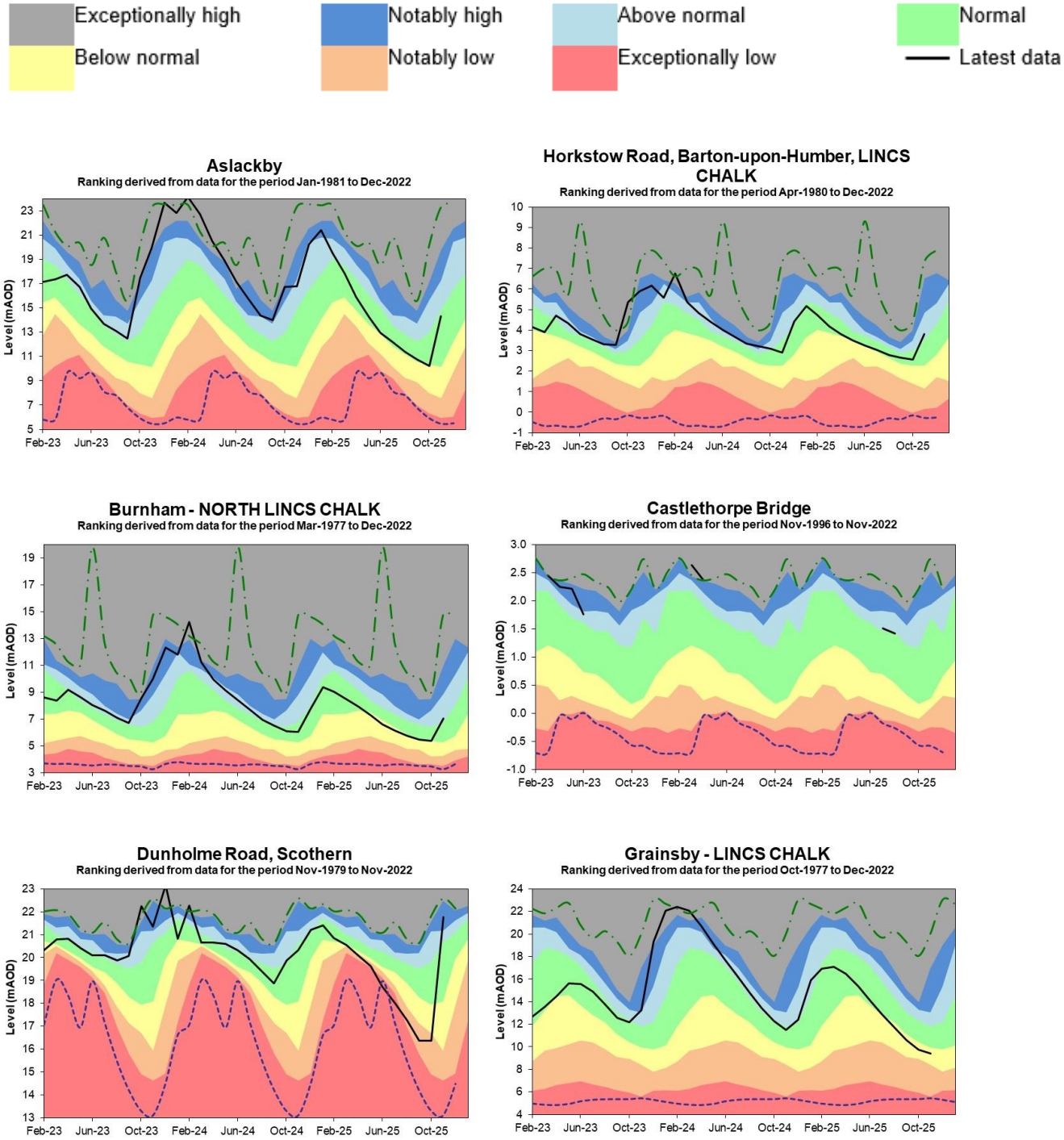
Figure 5.1: Groundwater levels for indicator sites at the end of November 2025, classed relative to an analysis of respective historic November levels. Table available in the appendices with detailed information.

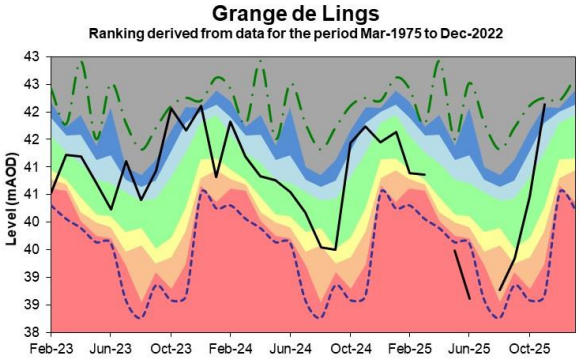


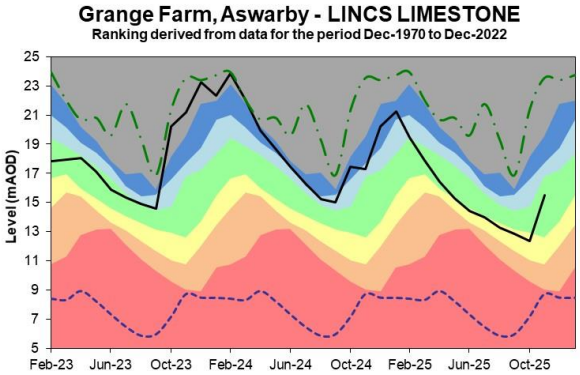
(Source: Environment Agency). Geological map reproduced with kind permission from UK Groundwater Forum, BGS copyright NERC. Crown copyright. © Ordnance Survey Crown Copyright and Database Rights (2025) AC0000807064.

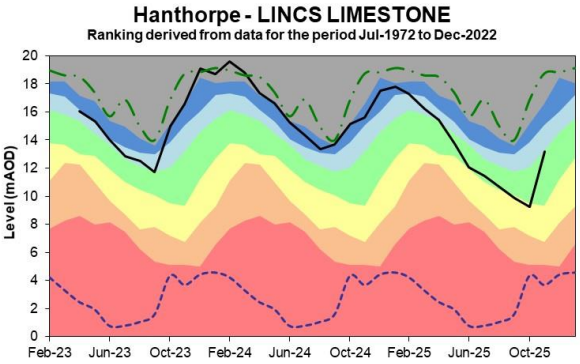
5.2 Groundwater level charts

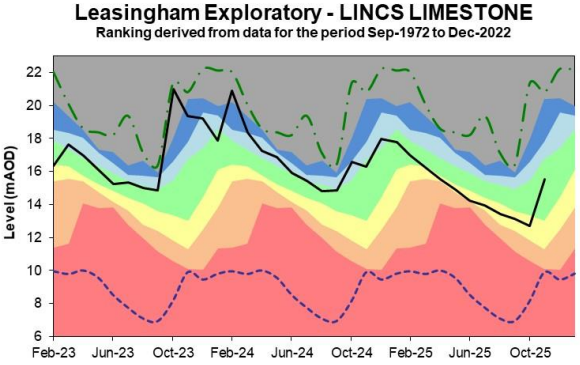
Figure 5.2: End of month groundwater levels at index groundwater level sites for major aquifers. 22 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.











Source: Environment Agency, 2025.

6 Reservoir stocks

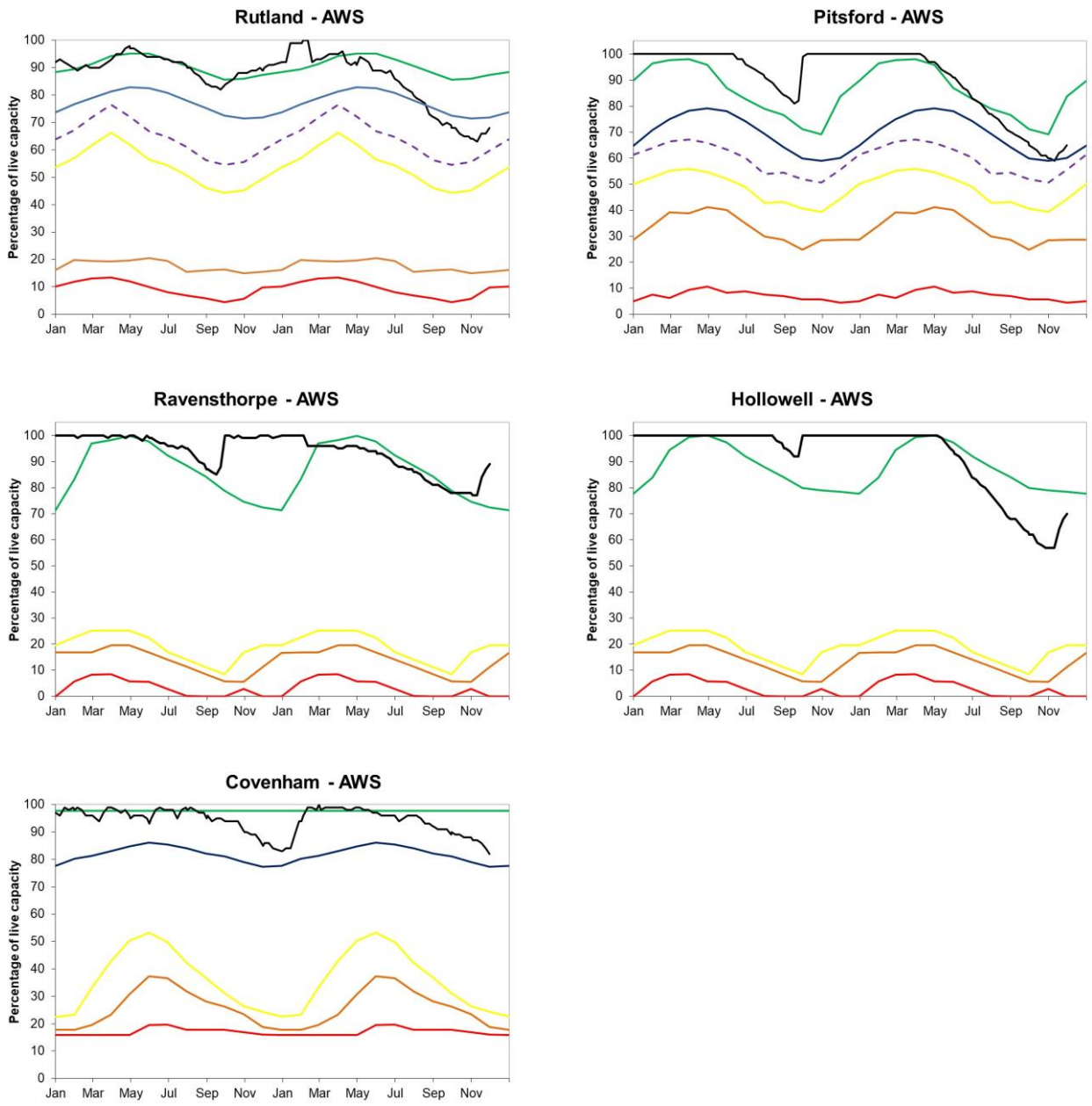


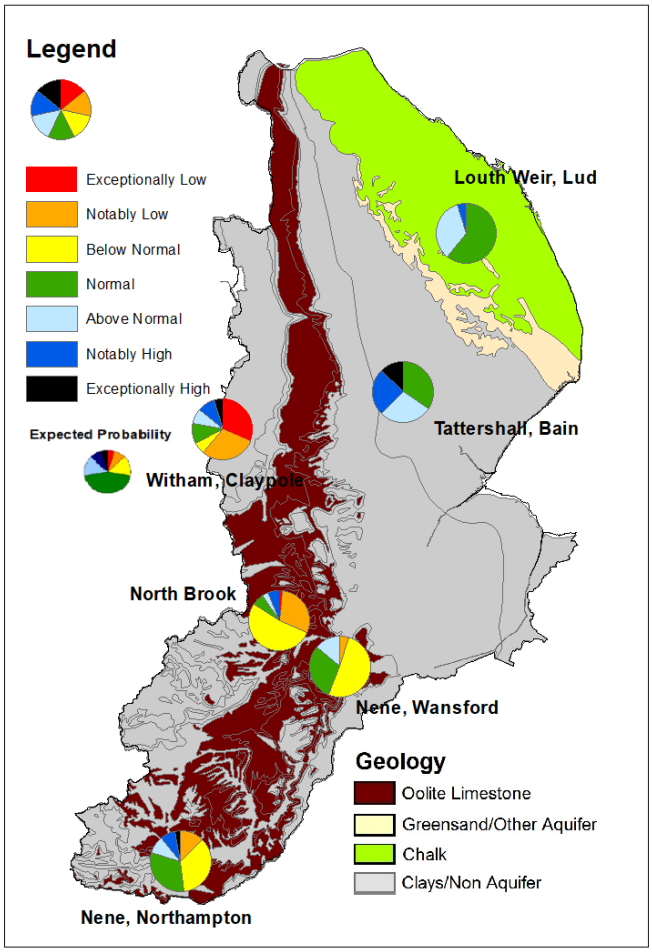
Figure 6.1: End of month regional reservoir stocks compared to the normal operating curve and Drought curves

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

7 Forward Look

7.1 Probabilistic ensemble projection of river flows at key sites in December 2025

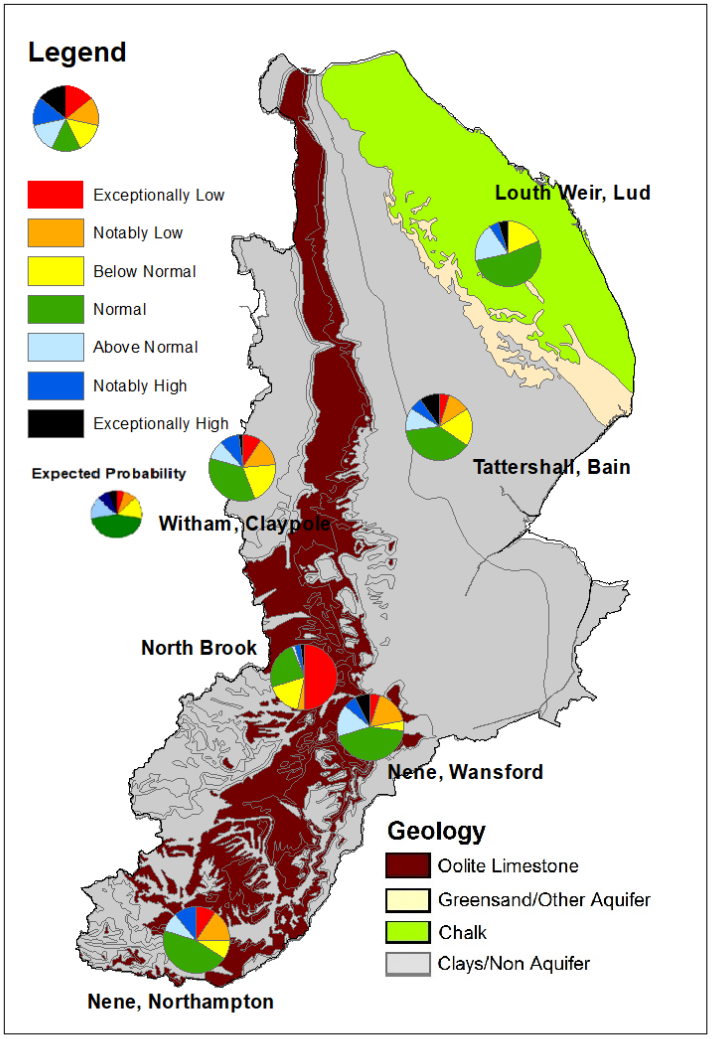
Table available in the appendices with detailed information. Exceptionally high or low levels are those which would typically occur 5% of the time within the historic record. Notably high or low levels are those which would typically occur 8% of the time. Above normal or below normal levels are those which would typically occur 15% of the time. Normal levels are those which would typically occur 44% of the time within the historic record.



Pie charts indicate probability, based on climatology, of the surface water flow at each site being, for example, exceptionally low for the time of year. (Source: Centre for Ecology and Hydrology, Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum, BGS © NERC. Crown copyright. © Ordnance Survey Crown Copyright and Database Rights (2025) AC0000807064.

7.2 Probabilistic ensemble projection of river flows at key sites in March 2026

Table available in the appendices with detailed information. Exceptionally high or low levels are those which would typically occur 5% of the time within the historic record. Notably high or low levels are those which would typically occur 8% of the time. Above normal or below normal levels are those which would typically occur 15% of the time. Normal levels are those which would typically occur 44% of the time within the historic record.



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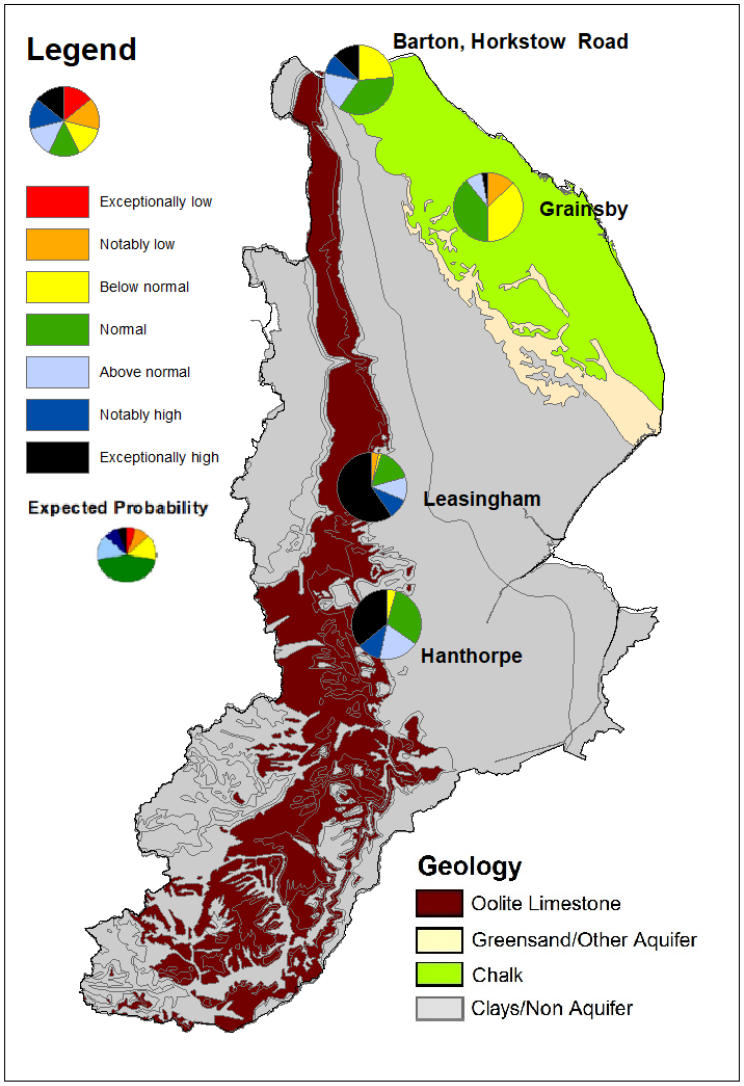
7.3 Probabilistic ensemble projection of groundwater levels at key sites in March 2026

Table available in the appendices with detailed information. Exceptionally high or low levels are those which would typically occur 5% of the time within the historic record. Notably high or low levels are those which would typically occur 8% of the time. Above normal or below normal levels are those which would typically occur 15% of the time. Normal levels are those which would typically occur 44% of the time within the historic record.



Pie charts indicate probability, based on climatology, of the groundwater level at each site being, for example, exceptionally low for the time of year. (Source: Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum, BGS © NERC. Crown copyright. © Ordnance Survey Crown Copyright and Database Rights (2025) AC0000807064.

7.4 Probabilistic ensemble projection of groundwater levels at key sites in September 2026

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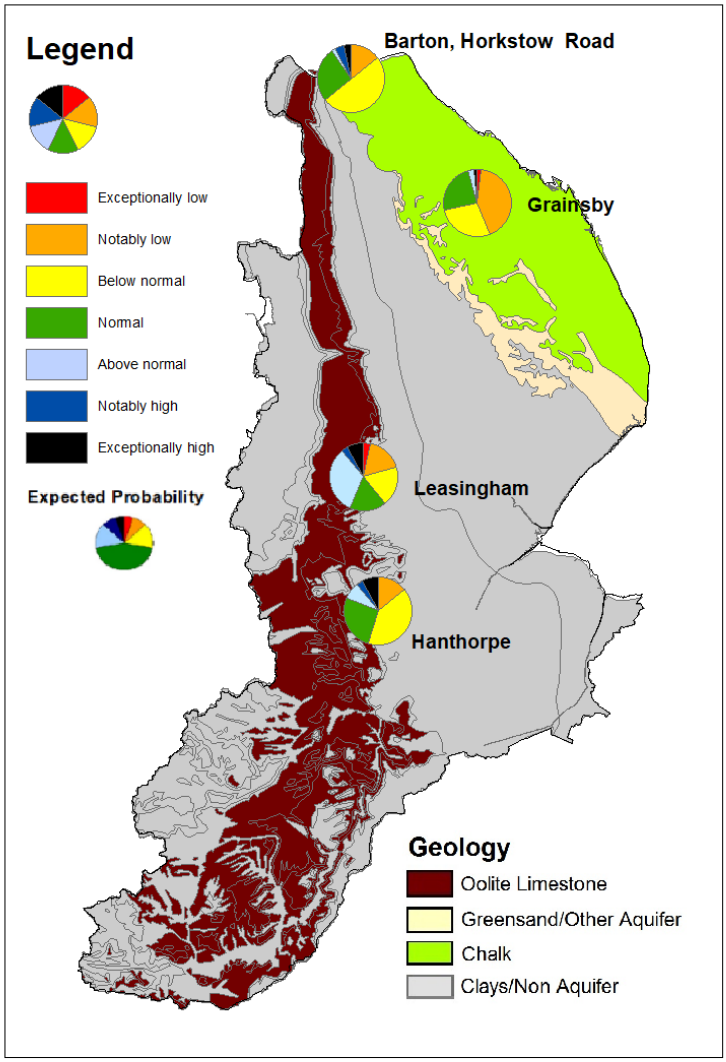

Pie charts indicate probability, based on climatology, of the groundwater level at each site being, for example, exceptionally low for the time of year. (Source: Environment Agency) Geological map reproduced with kind permission from UK Groundwater Forum, BGS © NERC. Crown copyright. © Ordnance Survey Crown Copyright and Database Rights (2025) AC0000807064.

8 Glossary

8.1 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).

8.2 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.

9 Appendices

9.1 Rainfall table

Hydrological area	Nov 2025 rainfall % of long term average 1991 to 2020	Nov 2025 band	Sep 2025 to November cumulative band	Jun 2025 to November cumulative band	Dec 2024 to November cumulative band
Louth Grimsby And Ancholme	247	Exceptionally High	Exceptionally high	Above normal	Normal
Lower Welland And Nene	214	Exceptionally High	Notably high	Normal	Below normal
South Forty Foot And Hobhole	204	Exceptionally High	Notably high	Normal	Normal
Steeping Great Eau And Long Eau	213	Exceptionally High	Notably high	Normal	Normal
Upper Welland And Nene	201	Exceptionally High	Above normal	Normal	Below normal
Witham To Chapel Hill	227	Exceptionally High	Notably high	Normal	Normal

9.2 River flows table

Site name	River	Catchment	Nov 2025 band	Oct 2025 band
Ashley	Welland Mkt.harb-rockinghm	Welland Rockingham	Notably high	Normal
Barrowden/tixover	Welland (rockingham To Stamford)	Welland Stamford	Notably high	Normal
Claypole	Upper Witham	Witham Bargate Upper	Normal	Normal
Geldharts Mill	Nene (brampton Branch)	Nene Brampton Bridge	Normal	Normal
Kates Bridge Plus King Street	Glen (an)	Welland and Glen	Normal	Below normal
Langworth	Barlings Eau	Barlings Eau	Notably high	Normal
Louth Weir	Lud	Louth Canal	Normal	Notably low
Partney	Lymn & Steeping	Lymn Steeping	Above normal	Below normal
Rase Bishopbridge	Ancholme	Ancholme W Mid	Above normal	Normal
River Bain Tattershall	Bain	Bain	Above normal	Below normal

Upton Mill Total	Nene (kislingbury Branch)	Nene Kislingbry Bridge	Normal	Normal
Wansford Combined	Nene (wollaston To Wansford)	Nene Wansford	Normal	Below normal

9.3 Groundwater table

Site name	Aquifer	End of Nov 2025 band	End of Oct 2025 band
Aslackby	Limestone (cornbrash Formation)	Normal	Below normal
Barton-upon-humber	Grimsby Ancholme Louth Chalk	Above normal	Normal
Burnham	Grimsby Ancholme Louth Chalk	Above normal	Below normal
Castlethorpe Bridge	Grimsby Ancholme Louth Limestone		
Dunholme Road, Scothern	Grimsby Ancholme Louth Limestone	Notably high	Notably low
Grainsby	Grimsby Ancholme Louth Chalk	Below normal	Below normal
Grange De Lings	Grimsby Ancholme Louth Limestone	Exceptionally high	Normal
Grange Farm, Aswarby	Limestone (mudstone - Peterborough Member)	Normal	Below normal

Hanthorpe	Limestone (cornbrash Formation)	Normal	Below normal
Leasingham Exploratory	Limestone (rutland Formation)	Normal	Below normal

9.4 Ensemble projections tables

9.4.1 Probabilistic ensemble projection of river flows at key sites in December 2025

Percentage of pie chart for each band

Site	Nene Nton	Nene Wansford	North Brook	Claypole	Louth	Tattershall
Exceptionally low	0.0	0.0	1.6	31.3	0.0	0.0
Notably low	12.5	4.7	29.7	29.7	0.0	0.0
Below normal	35.9	51.6	53.1	6.3	0.0	0.0
Normal	31.3	29.7	6.3	10.9	60.9	34.4
Above normal	9.4	14.1	3.1	7.8	34.4	28.1
Notably high	7.8	0.0	6.3	9.4	4.7	25.0
Exceptionally high	3.1	0.0	0.0	4.7	0.0	12.5

9.4.2 Probabilistic ensemble projection of river flows at key sites in March 2026

Percentage of pie chart for each band

Site	Nene Nton	Nene Wansford	North Brook	Claypole	Louth	Tattershall
Exceptionally low	9.4	4.7	50.0	9.4	0.0	4.7
Notably low	15.6	17.2	3.1	14.1	0.0	10.9
Below normal	9.4	4.7	17.2	20.3	18.8	18.8
Normal	45.3	43.8	23.4	35.9	53.1	39.1
Above normal	9.4	15.6	1.6	9.4	18.8	10.9
Notably high	10.9	6.3	3.1	9.4	4.7	6.3
Exceptionally high	0.0	7.8	1.6	1.6	4.7	9.4

9.4.3 Probabilistic ensemble projection of groundwater levels at key sites in March 2026

Percentage of pie chart for each band

Site	Grainsby	Hanthorpe	Horkstow	Leasingham
Exceptionally low	0.0	0.0	0.0	0.0
Notably low	12.5	0.0	0.0	3.1
Below normal	37.5	4.7	23.4	1.6
Normal	39.1	29.7	35.9	15.6
Above normal	7.8	18.8	18.8	10.9
Notably high	0.0	10.9	9.4	9.4
Exceptionally high	3.1	35.9	12.5	59.4

9.4.4 Probabilistic ensemble projection of groundwater levels at key sites in September 2026

Percentage of pie chart for each band

Site	Grainsby	Hanthorpe	Horkstow	Leasingham
Exceptionally low	1.6	0.0	0.0	3.1
Notably low	42.2	14.1	14.1	17.2
Below normal	28.1	40.6	50.0	18.8
Normal	23.4	26.6	26.6	17.2
Above normal	3.1	7.8	1.6	32.8
Notably high	0.0	3.1	4.7	3.1
Exceptionally high	1.6	7.8	3.1	7.8