

# Monthly water situation report: Hertfordshire and North London Area

## 1 Summary - April 2026

April was a very dry month in the Hertfordshire and North London area, receiving only 10% of the long term average rainfall, with all areal rainfall units ending the month in the exceptionally low band. Consequently, throughout the month no effective rainfall was received, while soil moisture deficits rose to more than double the long term month end value. The lack of rainfall meant that there were no distinctive flow peaks in clay and urban catchments, with all indicator sites ranging from the below normal to notably low bands. In chalk catchments, despite a decline in river baseflows, most indicator sites recorded month mean flows in the normal band. Groundwater levels declined at most indicator sites, however, most ended the month in the normal band.

### 1.1 Rainfall

April was a very dry month across the Hertfordshire and North London area (the Area), with a general lack of notable rainfall events and only 5mm recorded, equal to 10% of the long term average (LTA). All rainfall units ended April in the exceptionally low band. Despite this, the rainfall totals for the last three months were in the normal band and above normal for some rainfall units in the last six months. The wettest day of the month was 13 April, with the highest rainfall totals recorded in the Roding areal rainfall unit, including:

- 7.6mm recorded at Thornwood STW
- 5.8mm recorded at Takeley STW
- 5.6mm recorded at Luxborough Lane

During April there was a total of 25 dry days across the Area (days with under 0.2mm of rain recorded).

### 1.2 Soil moisture deficit and recharge

The exceptionally low rainfall recorded in the Area meant that no effective rainfall was experienced during April. As a result, soil moisture deficits increased significantly throughout the Area to more than double the end of month LTA.

### 1.3 River flows

The lack of rainfall meant that during April there were generally no distinctive flow peaks in the Area's clay and urban indicator sites, with month mean flows ranging from the below normal to notably low bands. Of particular note, Cranford Park (River Crane) recorded its fifth lowest monthly flow for April on record (records start in 1978). With the low rainfall, river baseflows generally declined in the Area's chalk catchments. However, due to chalk river flows being supported by resilient groundwater levels, most indicator sites still recorded month mean flows

in the normal band, with Panshanger (River Mimram) and Colney Street (River Ver) recording in the above normal band.

## 1.4 Groundwater levels

Despite remaining at a stable level, the lack of rainfall and effective rainfall during April meant most groundwater sites in the Area started their seasonal decline. In the Mid-Chilterns Chalk aquifer, all sites recorded end of month levels in the normal band, with Ballingdon Farm being the only site not to have started its seasonal decline. For the Upper Lee Chalk aquifer, most indicator sites recorded end of month levels in the normal band, with Cave Gate and Hixham Hall in the above normal band. Lilley Bottom and Therfield Rectory were the only two indicator sites not to have shown a decline in groundwater level.

## 1.5 Reservoir stocks

Reservoir levels in the Lee Valley group increased slightly during April, starting the month at 96% of live capacity and ending the month at 98% (above its average level for the time of year). In the Lower Thames group, reservoir levels both started and ended April at 93% of live capacity (below its average level for the time of year).

## 1.6 Environmental impact

In the Colne catchment, April saw chalk river sources remain at the same locations as March but there was a decrease in flows in the upper reaches for most of the rivers.

- The River Ver continued to flow downstream of Markyate and flowed for its entire length.
- The River Gade started flowing above Great Gaddesden.
- The source of the River Bulbourne remained in the fields above Dudswell.
- The source of the River Chess remained at Missenden Road, upstream of Chesham.
- The River Misbourne continued to flow upstream of Great Missenden at Mobwell.

The chalk river sources in the Upper Lee generally moved downstream since March.

- The River Mimram was flowing upstream of Whitwell.
- The source of the River Beane moved downstream, but stayed above Walkern.
- The River Rib flowed from Buntingford.
- The River Ash (Herts) flowed intermittently from Blackhall and gained a steady flow above Hadham Ford.
- The River Stort flowed from above Langley Lower Green but dried between Clavering and Manuden.

To protect the environment, during April a number of abstraction licence flow constraints were in force. This ranged between 2 and 4 per week, out of a monthly maximum of 30.

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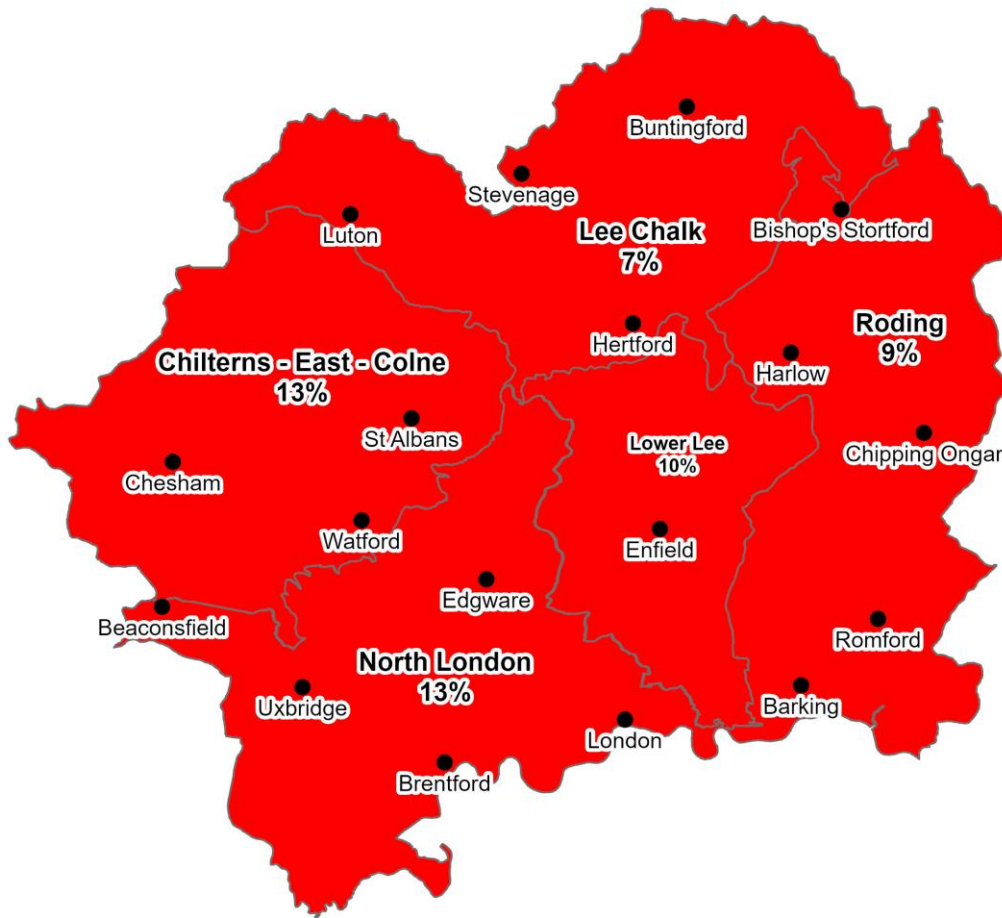
Contact Details: 03708 506 506

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## 2 Rainfall

### 2.1 Rainfall map

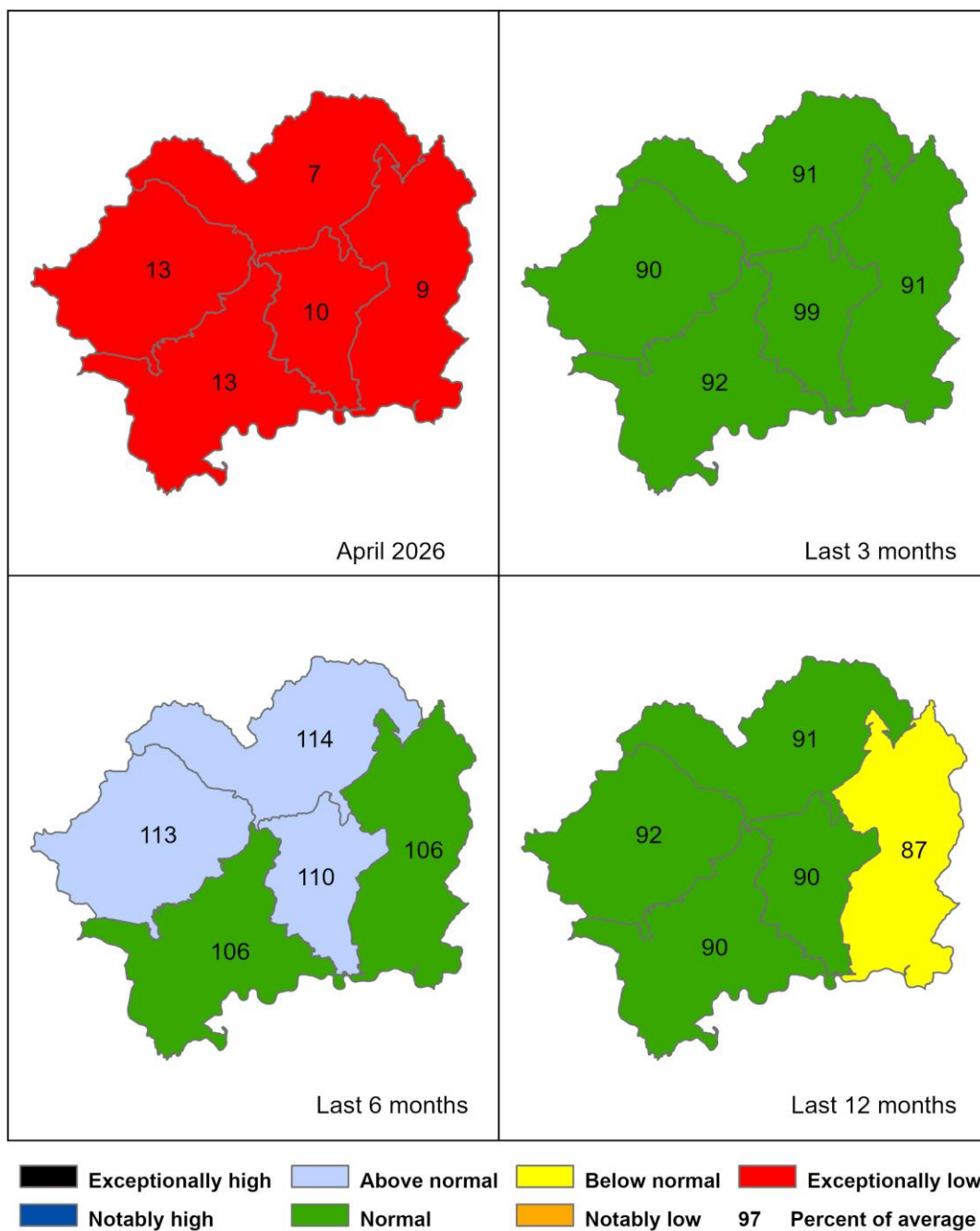
Figure 2.1: Total rainfall for hydrological areas for the current month (up to 30 April 2026), classed relative to an analysis of respective historic totals. Table available in the appendices with detailed information.



#### Legend

Exceptionally high	Below normal	Town / City
Notably high	Notably low	97% Percent of average
Above normal	Exceptionally low	
Normal		

Figure 2.2: Total rainfall for hydrological areas for the current month (up to 30 April 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.

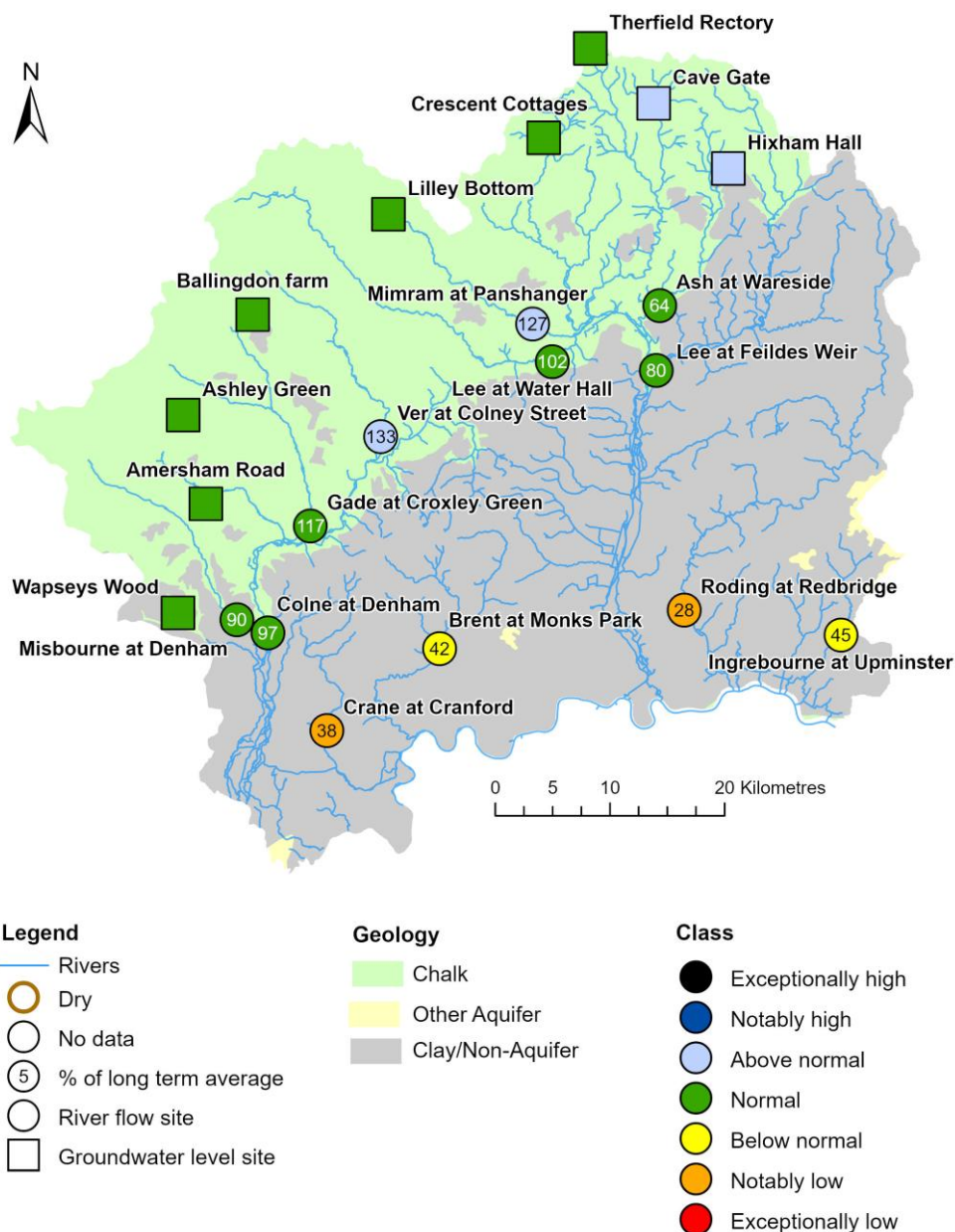


HadUK data based on the Met Office 1km gridded rainfall dataset derived from rain gauges (Source: Met Office. Crown copyright, 2026). Provisional data based on Environment Agency 1km gridded rainfall dataset derived from Environment Agency intensity rain gauges. © Ordnance Survey Crown Copyright and Database Rights 2026 AC0000807064.

### 3 River flows and Groundwater levels

#### 3.1 River flows and Groundwater level map

Figure 3.1: Monthly mean river flow and groundwater levels at our indicator sites for April 2026, expressed as a percentage of the respective long term average and classed relative to an analysis of historic April monthly means. Table available in the appendices with detailed information.



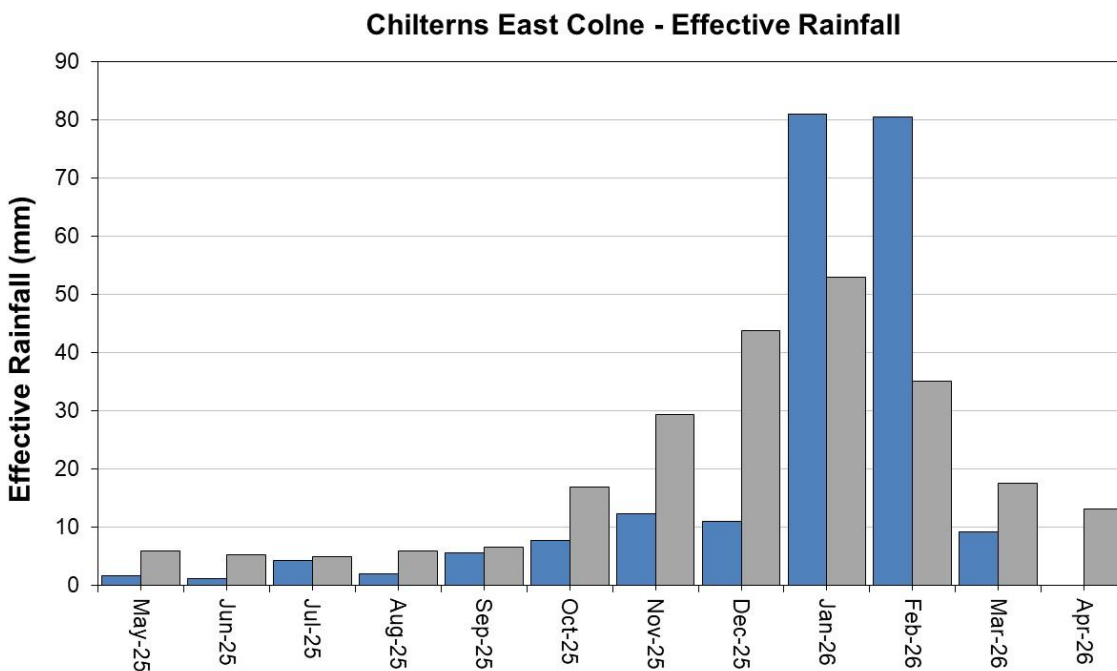
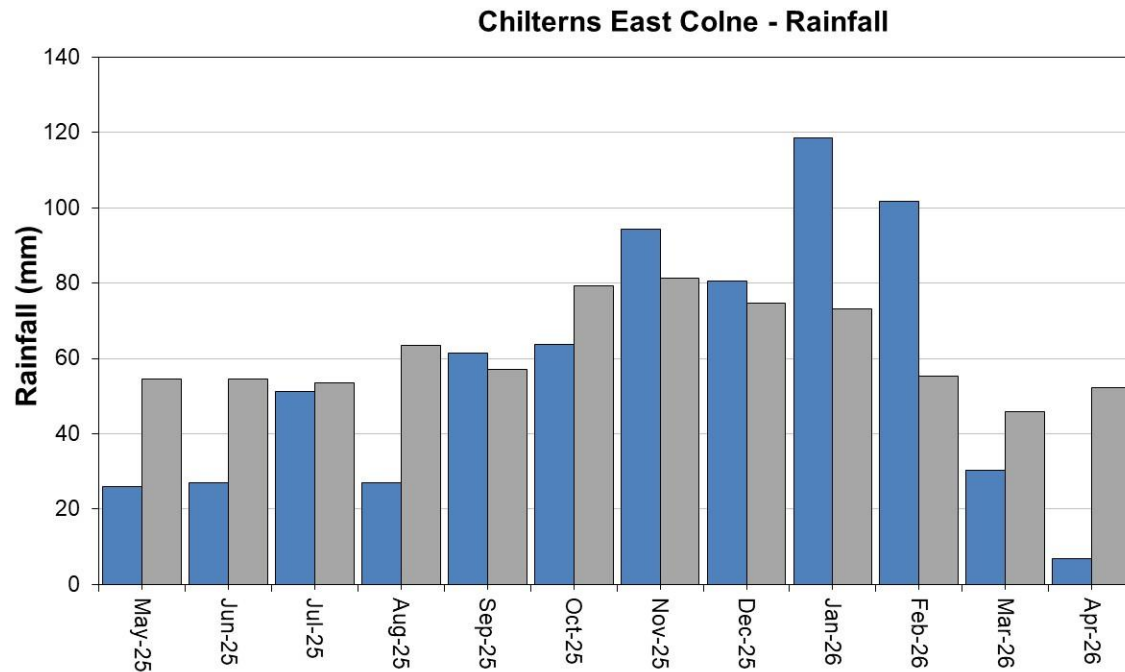
(Source: Environment Agency). © Ordnance Survey Crown Copyright and Database Rights 2026 AC0000807064. Geological map reproduced with the permission of the British Geological Survey © UKRI 2026.

## 4 Colne Catchment

### 4.1 Colne Rainfall and effective rainfall charts

Figure 4.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average for the Colne.

■ Monthly total rainfall (mm)      ■ Long term average rainfall (mm)



HadUK rainfall data (Source: Met Office. Crown copyright, 2026)

EA Soil Moisture Model effective rainfall data (Source: Environment Agency, 2026)

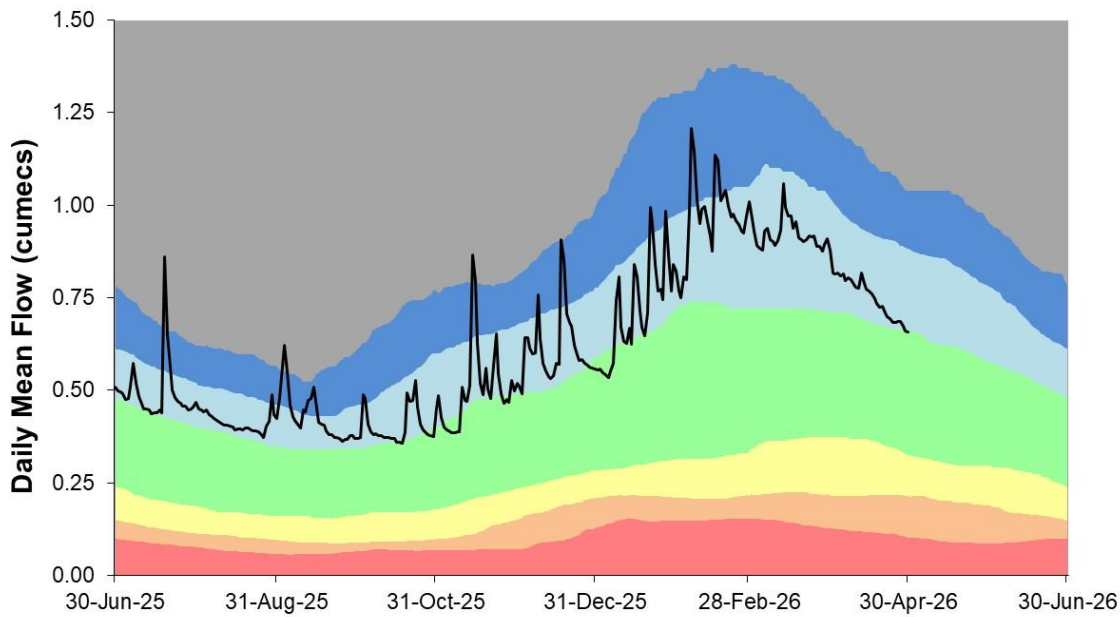
## 4.2 Colne River flow charts

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.



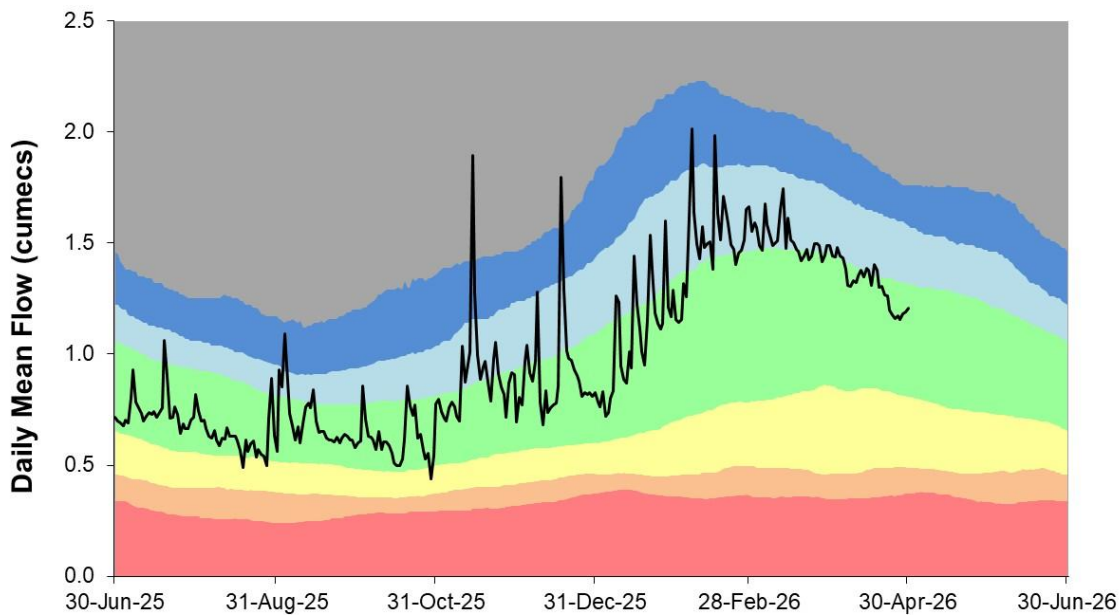
### RIVER VER AT COLNEY STREET (HANSTEADS)

Ranking used data from 01/10/1956 to 31/12/2022

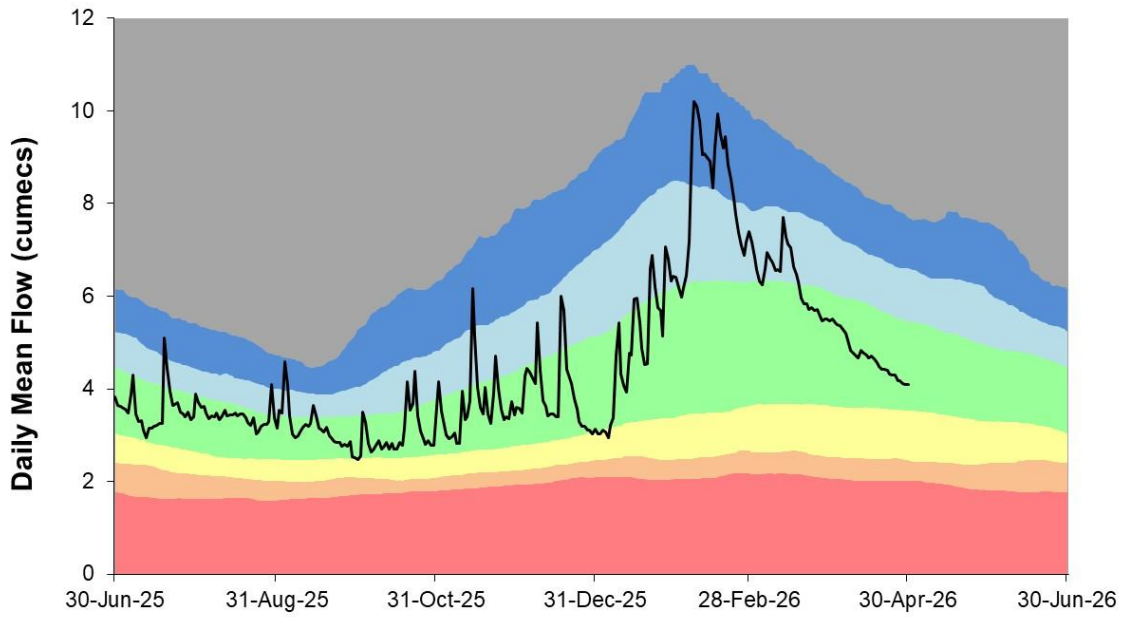


### RIVER GADE AT CROXLEY GREEN

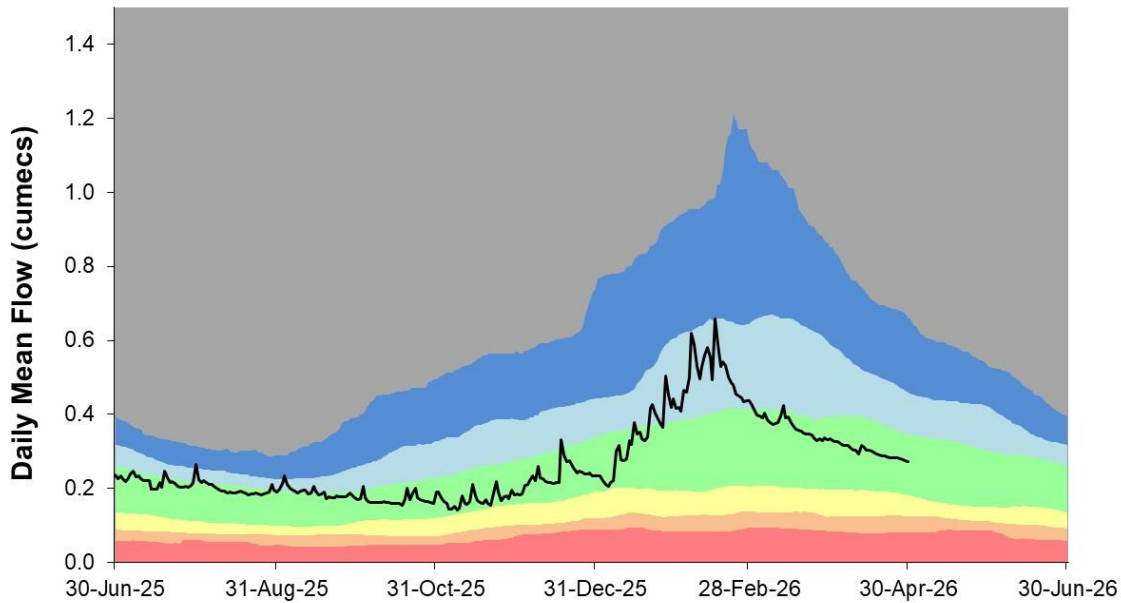
Ranking used data from 01/10/1970 to 31/12/2022



**RIVER COLNE AT DENHAM**  
Ranking used data from 01/10/1952 to 31/12/2022



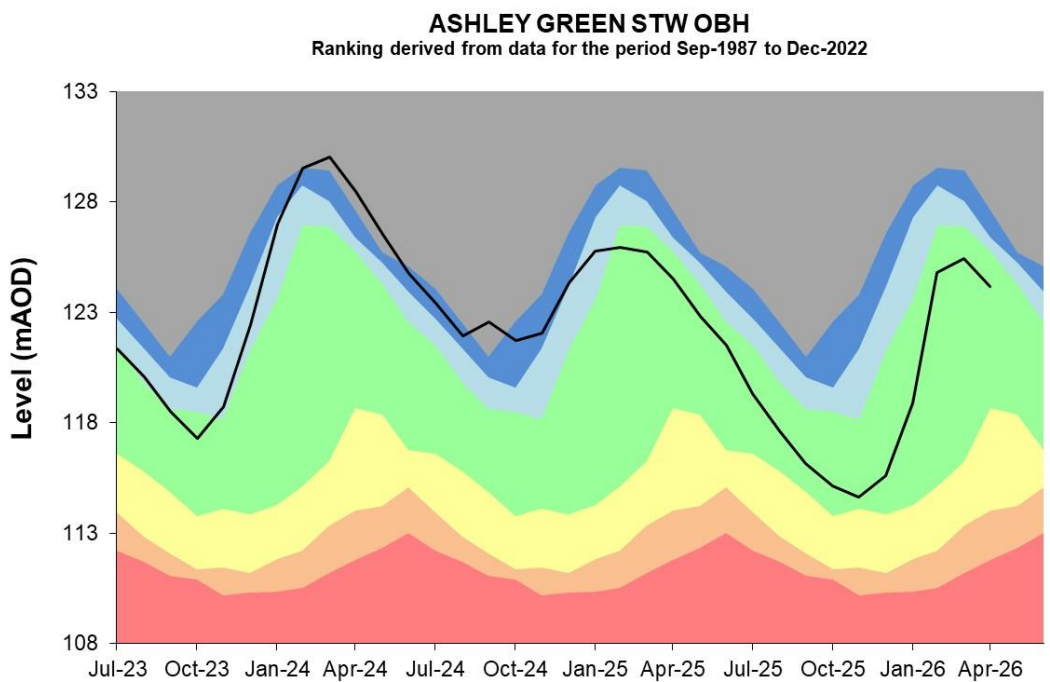
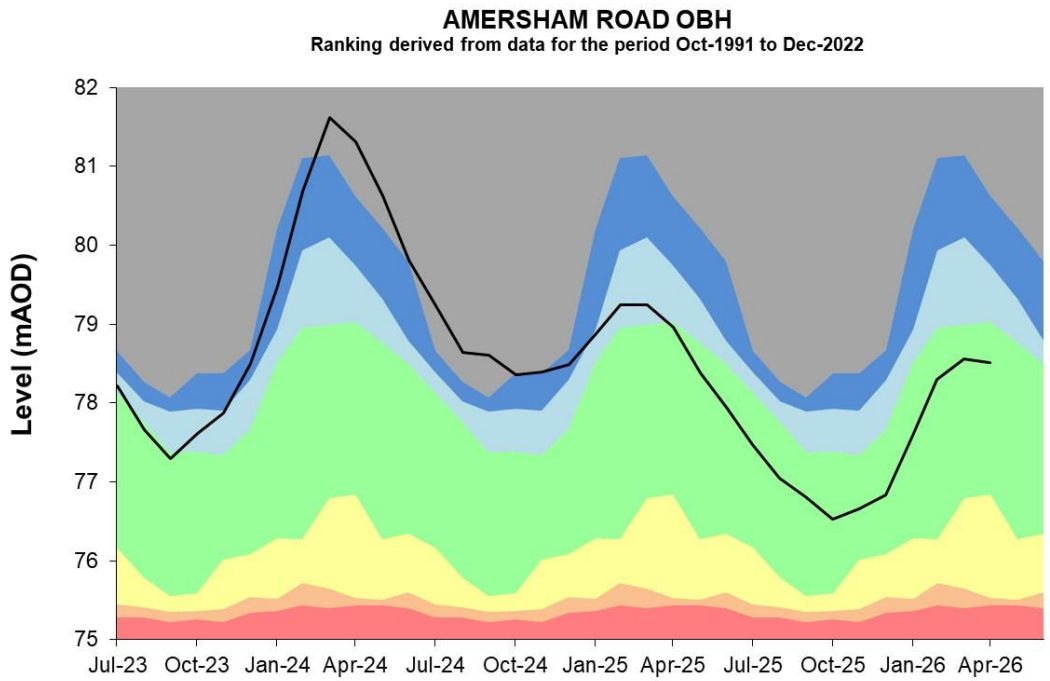
**RIVER MISBOURNE AT DENHAM LODGE**  
Ranking used data from 01/07/1984 to 31/12/2022



Source: Environment Agency, 2026

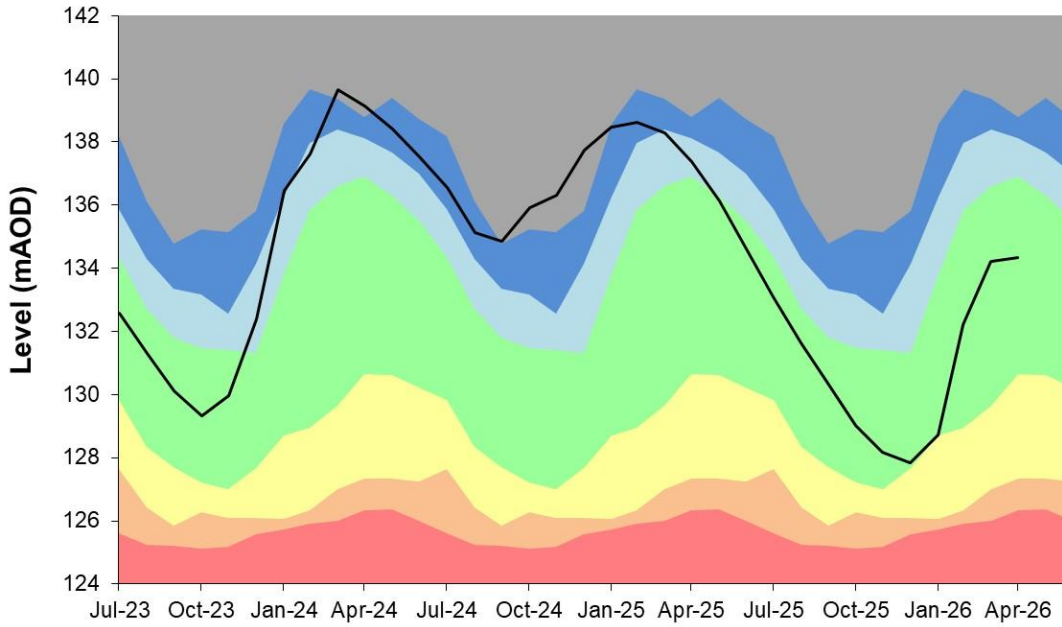
### 4.3 Colne Groundwater level charts

Figure 4.3: 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.



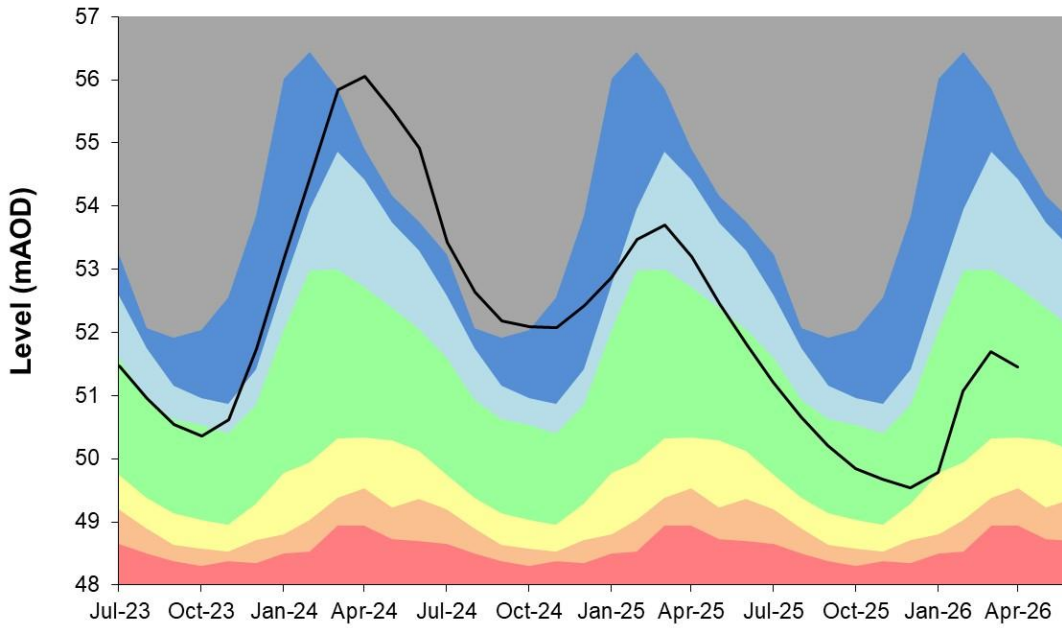
### BALLINGDON FARM

Ranking derived from data for the period Jan-1975 to Dec-2022



### WAPSEYS WOOD OBH

Ranking derived from data for the period Mar-1988 to Dec-2022



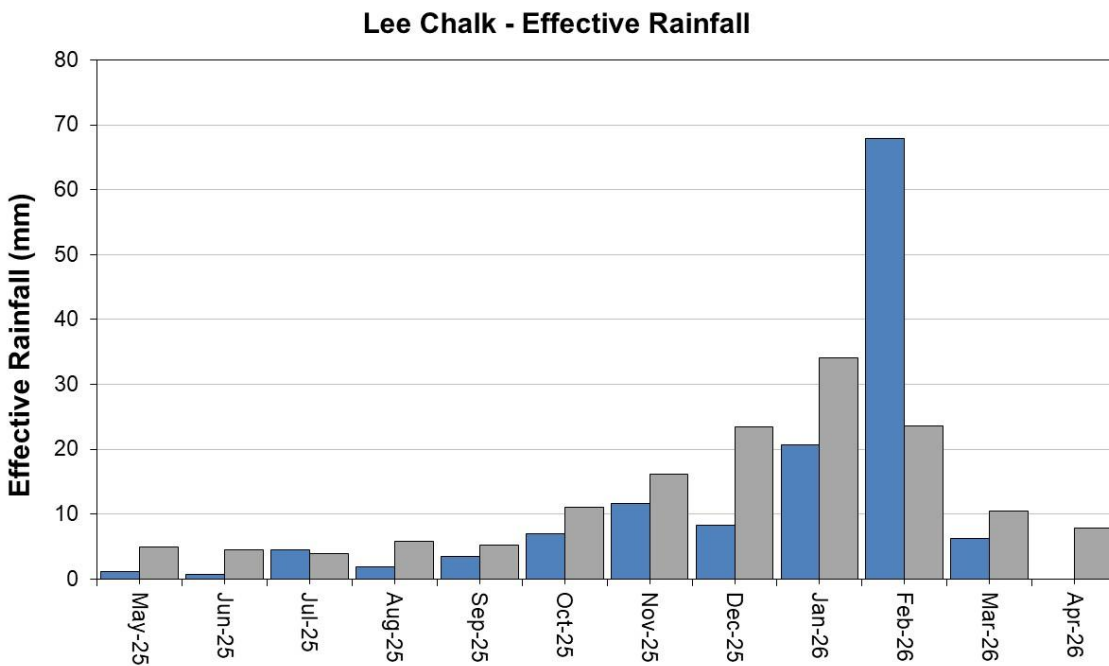
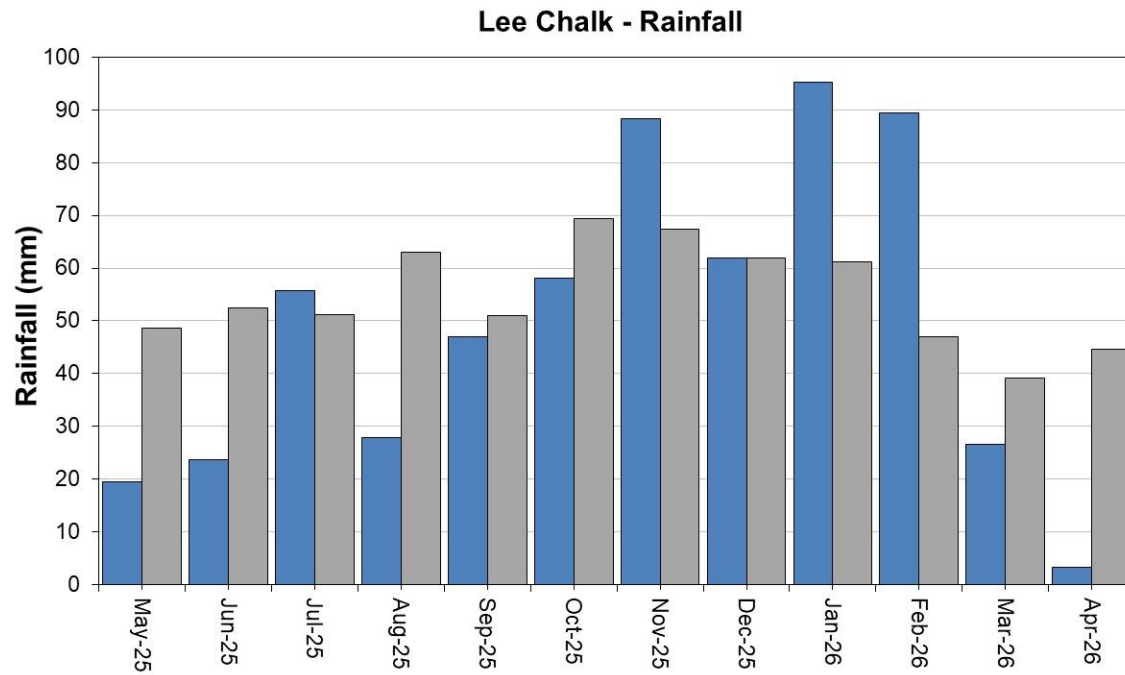
Source: Environment Agency, 2026

# 5 Upper Lee Catchment

## 5.1 Upper Lee Rainfall and Effective rainfall charts

Figure 5.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average for each region and for England.

■ Monthly total rainfall (mm)      ■ Long term average rainfall (mm)



HadUK rainfall data (Source: Met Office. Crown copyright, 2026)

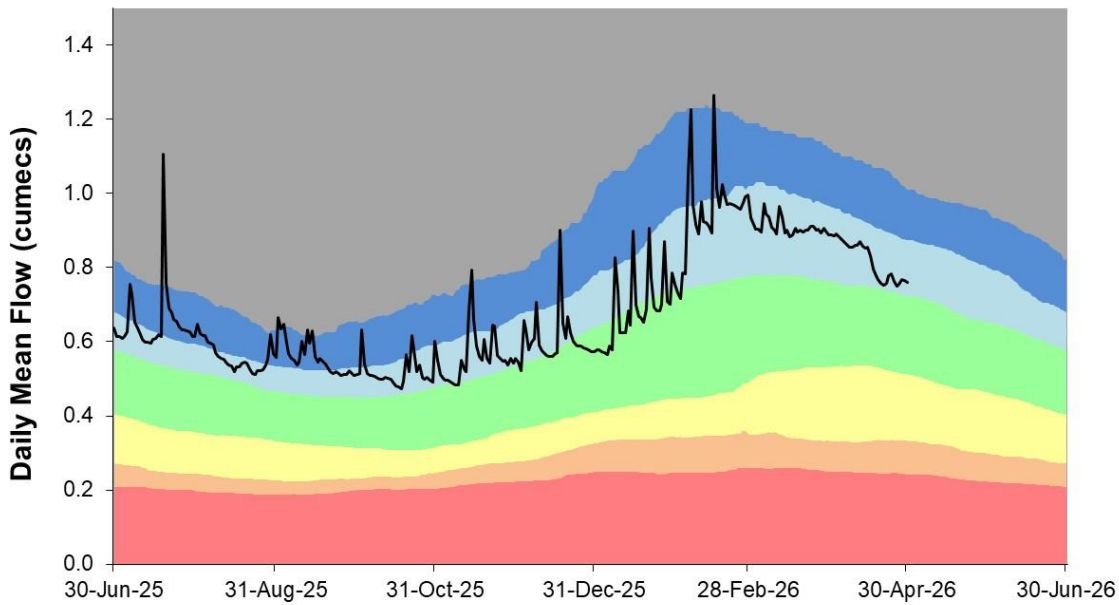
EA Soil Moisture Model effective rainfall data (Source: Environment Agency, 2026)

## 5.2 Upper Lee River flow charts

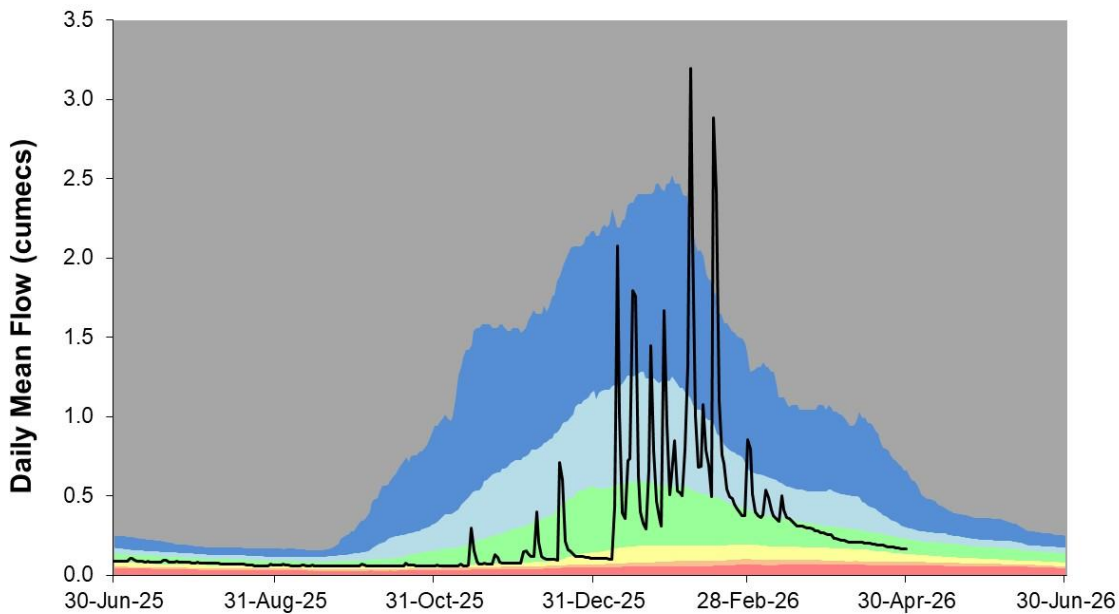
Figure 5.2 Daily mean river flow for index sites over the past year, compared to an analysis of historic daily mean flows, and long term maximum and minimum flows.



**RIVER MIMRAM AT PANSHANGER**  
Ranking used data from 01/12/1952 to 31/12/2022

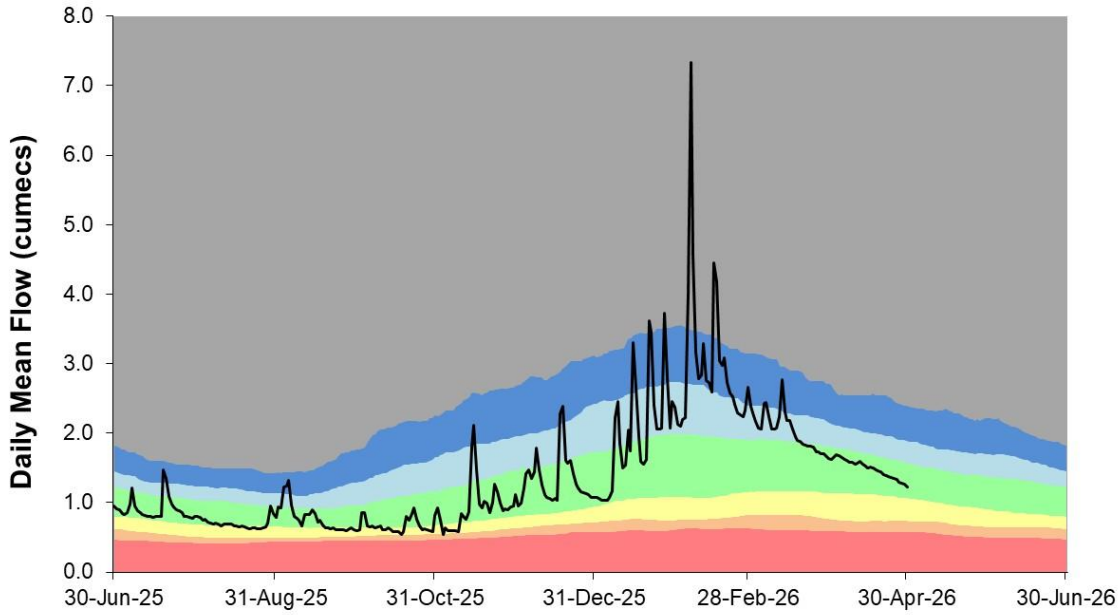


**RIVER ASH AT WARESIDE (MARDOCK)**  
Ranking used data from 03/06/1980 to 31/12/2022



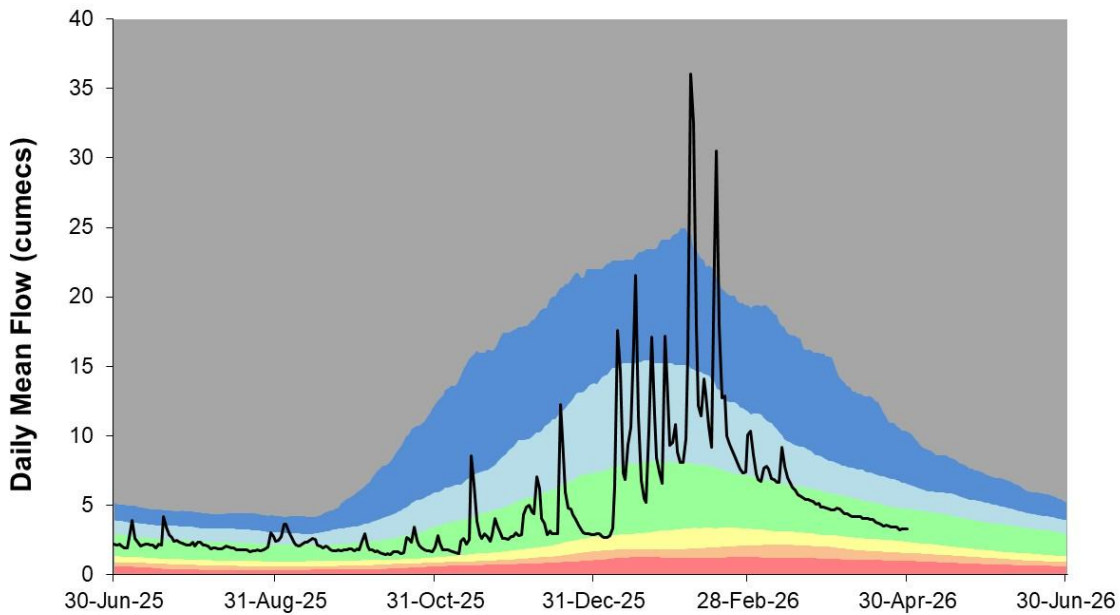
### RIVER LEE AT HOWE GREEN (WATER HALL)

Ranking used data from 01/04/1959 to 31/12/2022



### RIVER LEE AT FEILDES WEIR

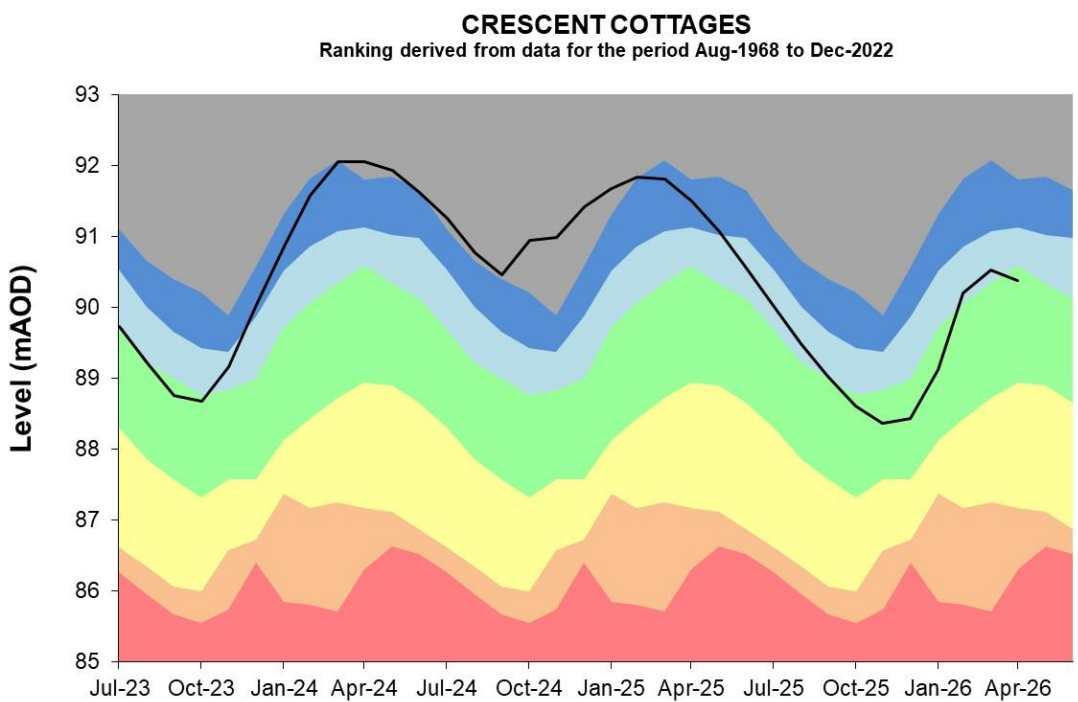
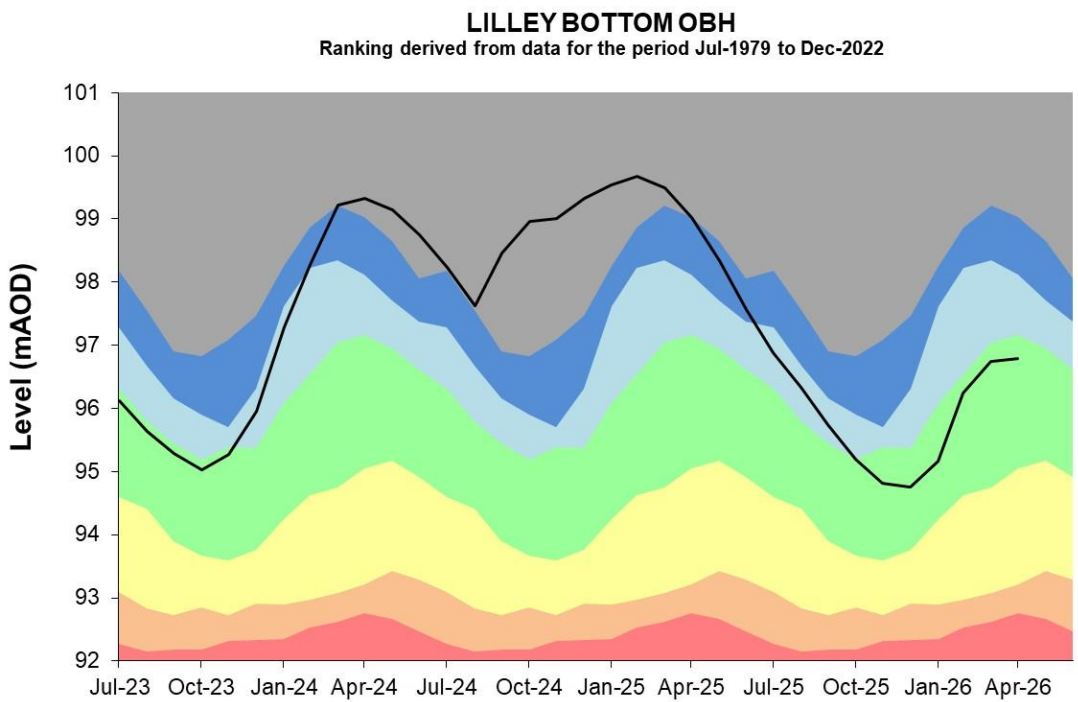
Ranking used data from 10/05/1883 to 31/12/2022



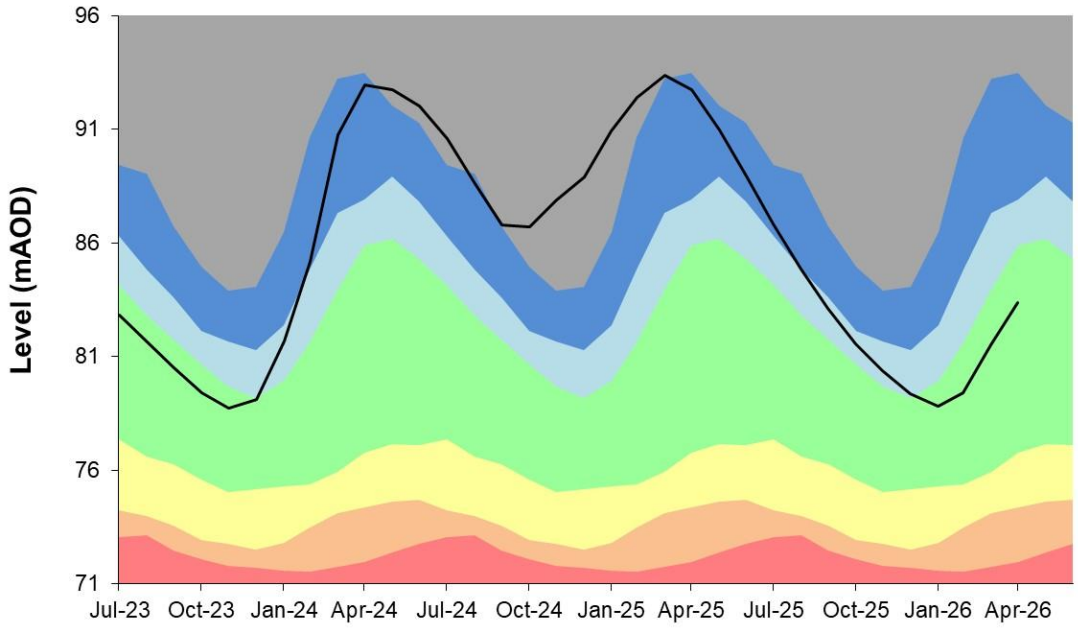
Source: Environment Agency, 2026

### 5.3 Upper Lee Groundwater level charts

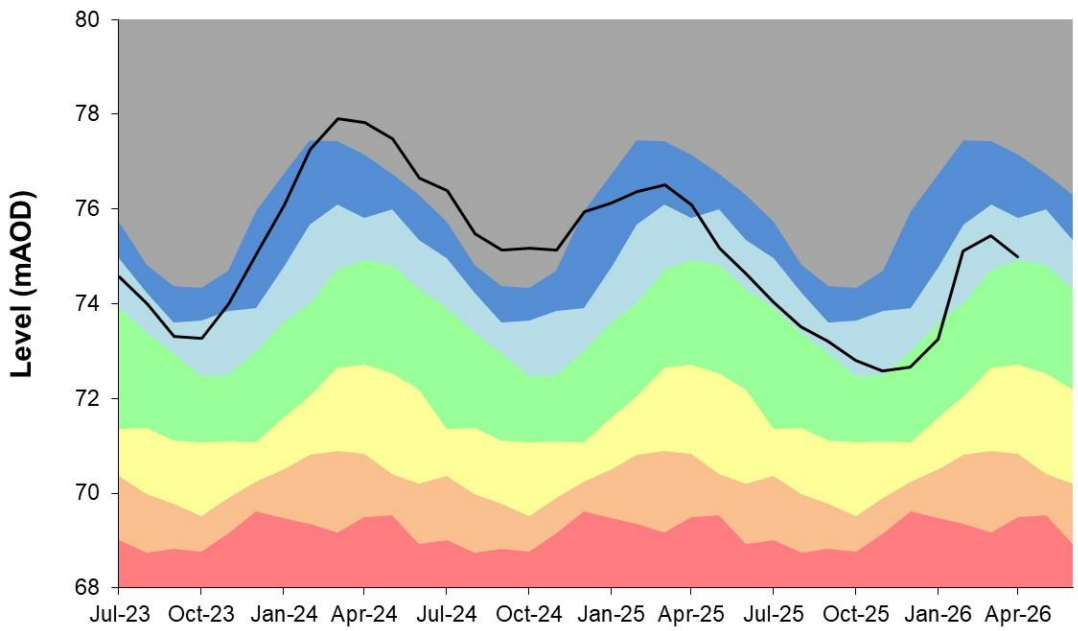
Figure 5.3: End of month groundwater levels at index groundwater level sites for major aquifers. 34 months compared to an analysis of historic end of month levels and long term maximum and minimum levels.



**THERFIELD RECTORY**  
Ranking derived from data for the period Jan-1883 to Dec-2022

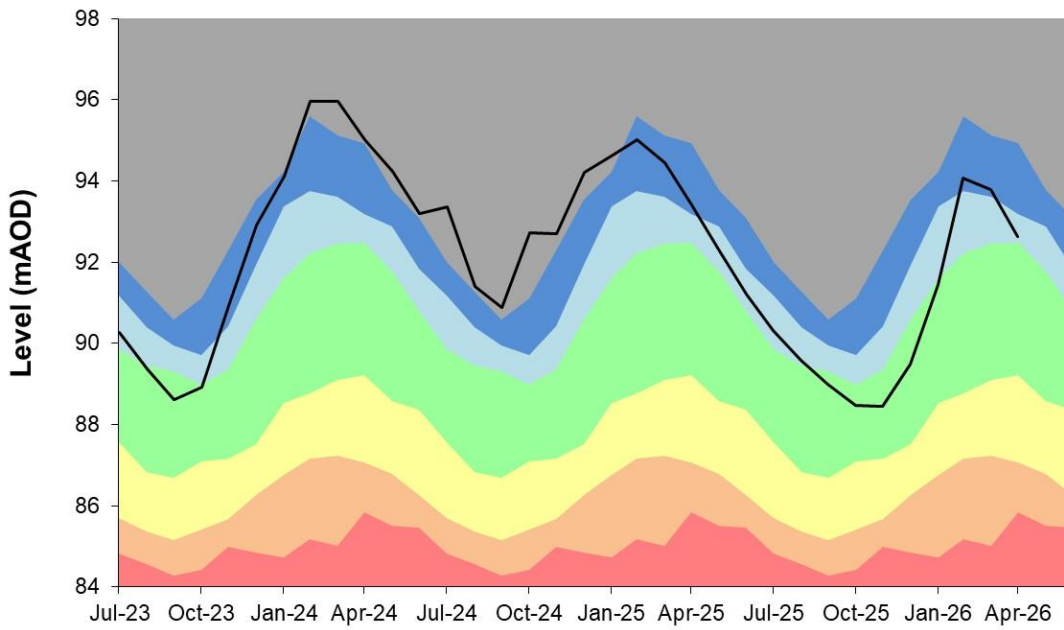


**HIXHAM HALL**  
Ranking derived from data for the period Jun-1964 to Dec-2022



### CAVE GATE

Ranking derived from data for the period Jun-1966 to Dec-2022



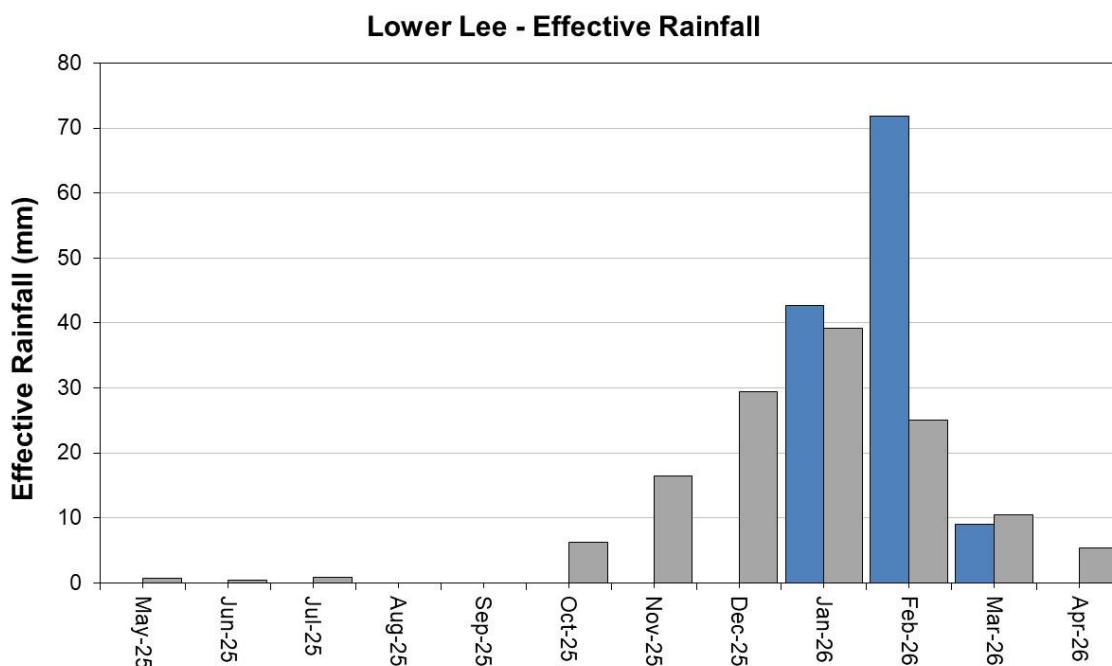
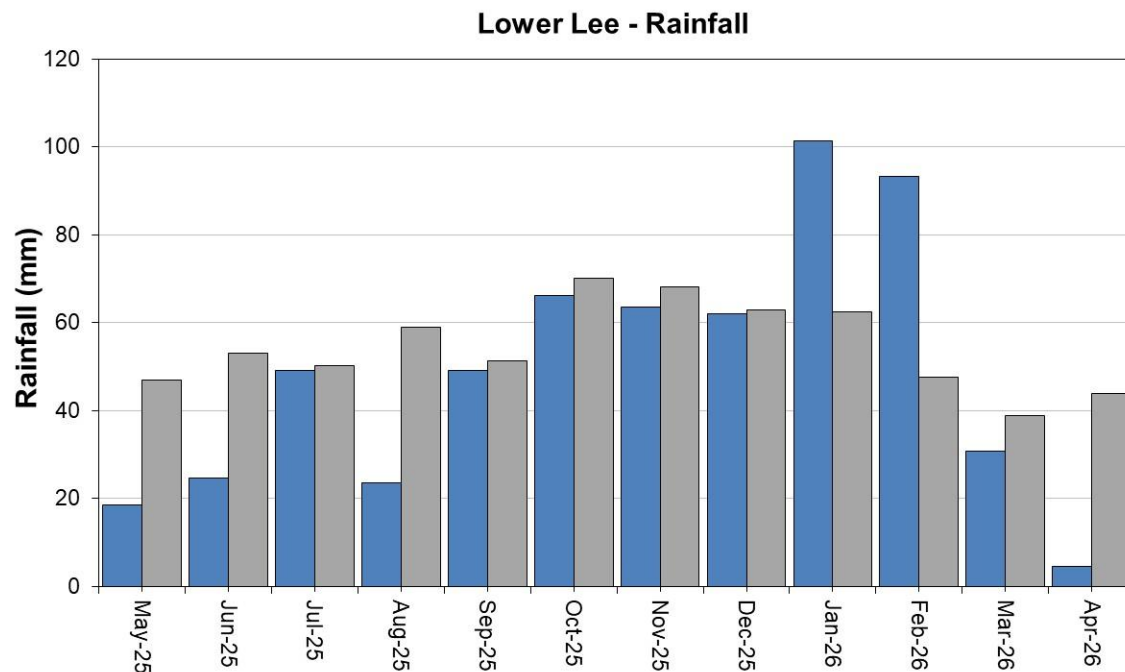
Source: Environment Agency, 2026

## 6 Lower Lee Catchment

### 6.1 Lower Lee Rainfall and Effective Rainfall charts

Figure 6.1: Monthly rainfall and effective rainfall totals for the past 12 months as a percentage of the 1991 to 2020 long term average for the Lower Lee.

■ Monthly total rainfall (mm)      ■ Long term average rainfall (mm)



HadUK rainfall data (Source: Met Office. Crown copyright, 2026)

EA Soil Moisture Model effective rainfall data (Source: Environment Agency, 2026)

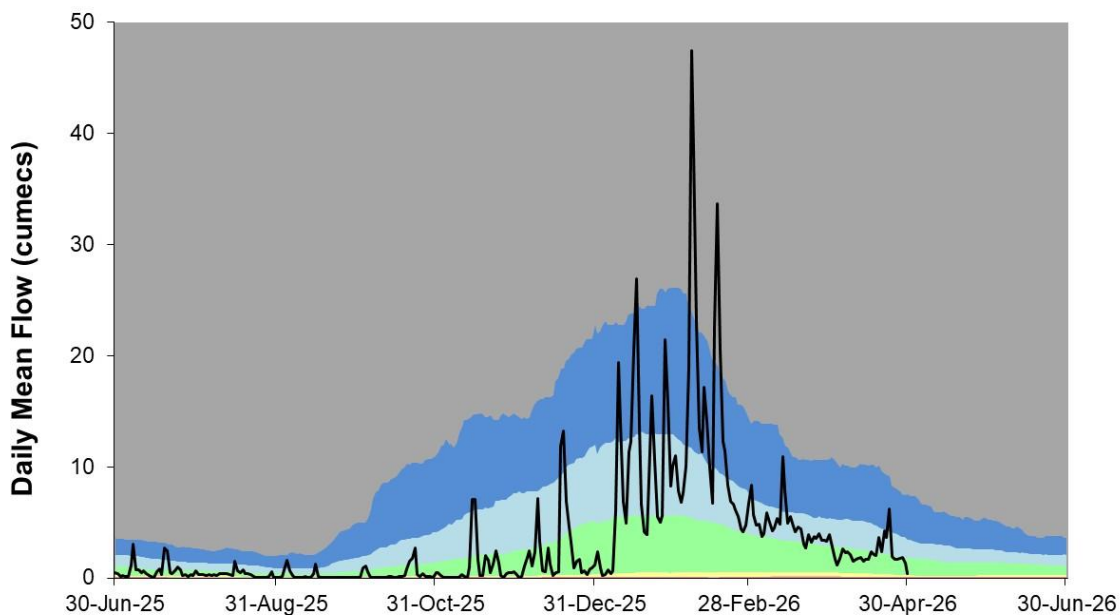
## 6.2 Lower Lee River flow charts

Figure 6.2: 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.



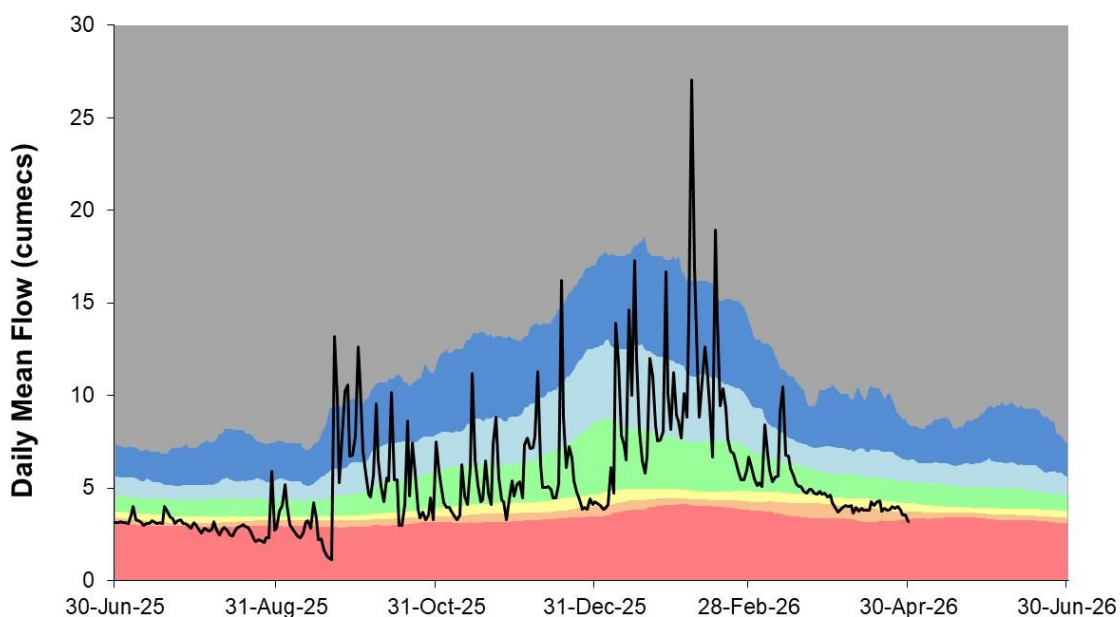
### LEE FLOOD CHANNEL AT WALTHAMSTOW (LOW HALL)

Ranking used data from 01/01/1980 to 31/12/2022



### RIVER LEE AT LEA BRIDGE

Ranking used data from 22/07/1992 to 31/12/2022

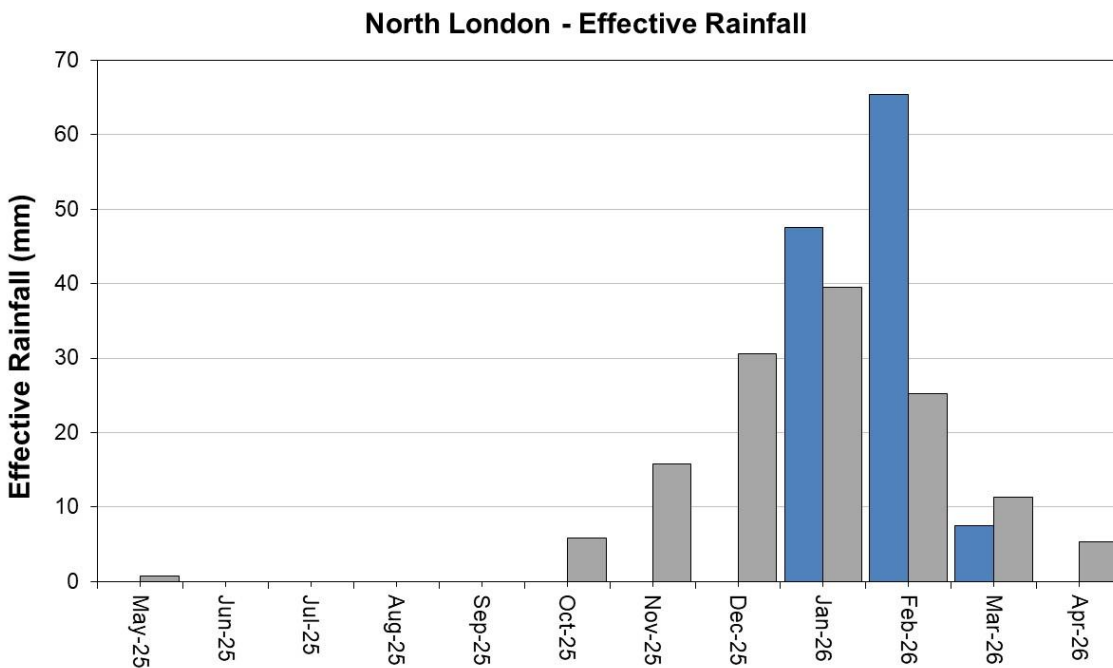
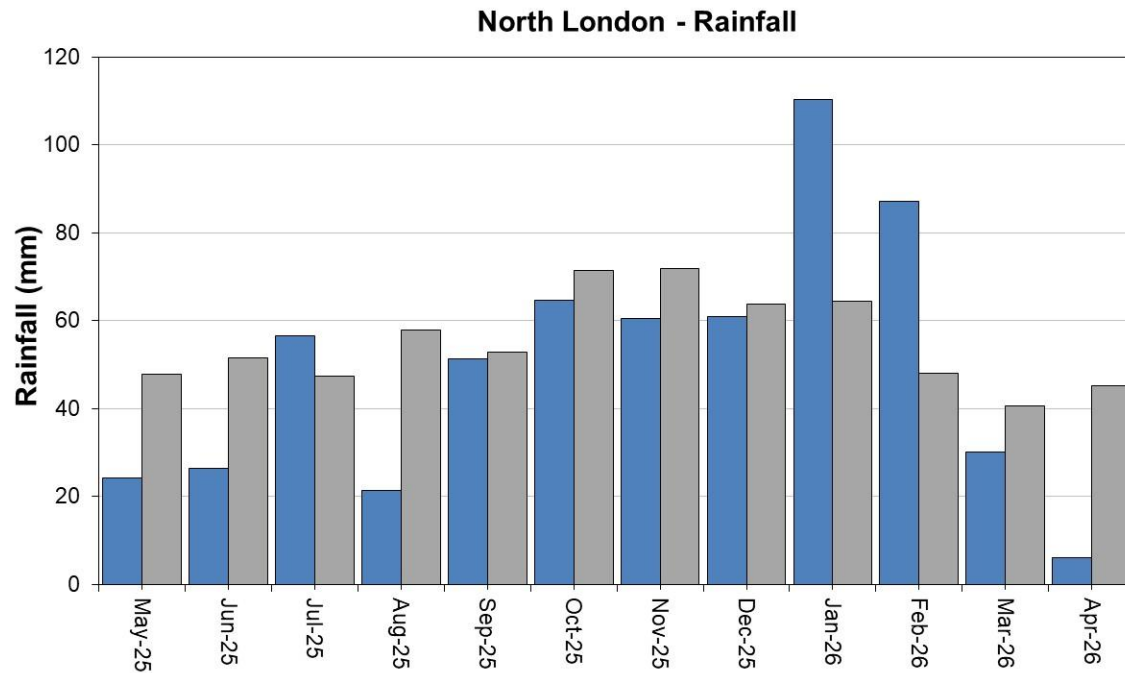


# 7 North London Catchment

## 7.1 North London Rainfall and Effective Rainfall charts

Figure 7.1: Monthly rainfall and effective rainfall totals for the past 12 months compared to the 1991 to 2020 long term average for each region and for England.

■ Monthly total rainfall (mm)      ■ Long term average rainfall (mm)

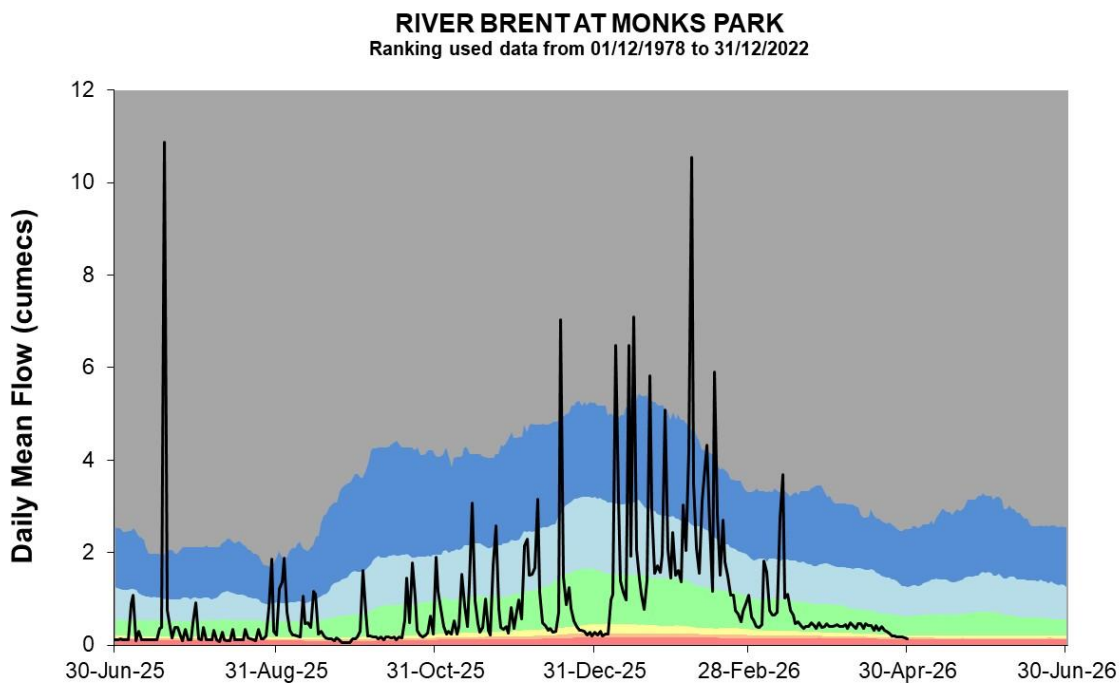
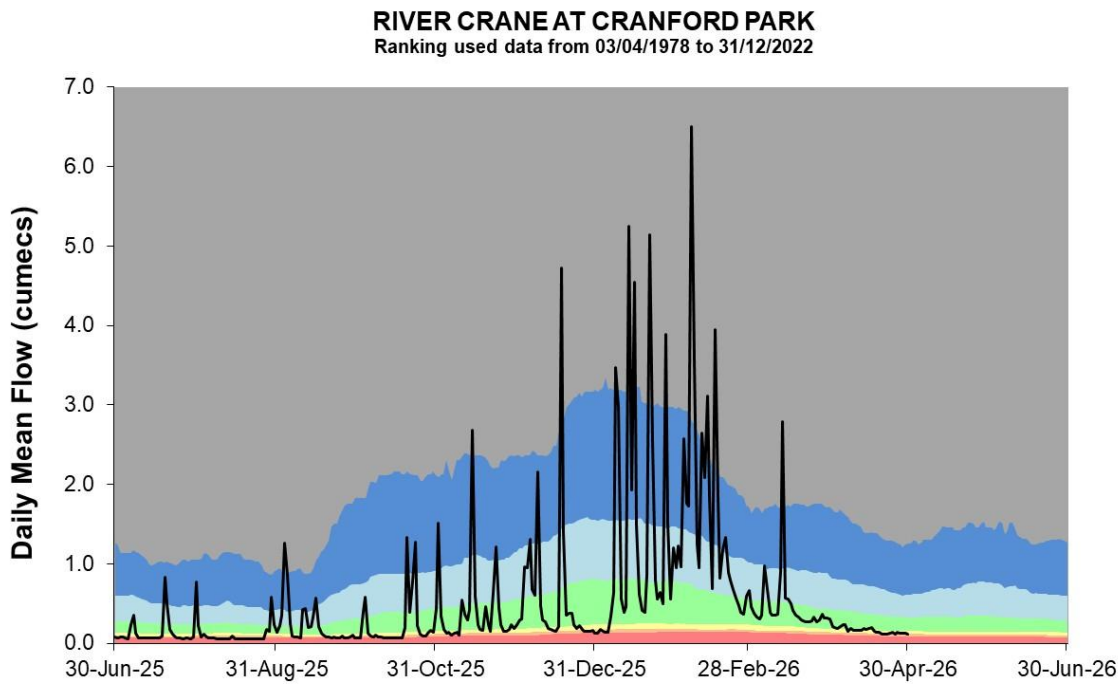


HadUK rainfall data (Source: Met Office. Crown copyright, 2026)

EA Soil Moisture Model effective rainfall data (Source: Environment Agency, 2026)

## 7.2 North London River flow charts

Figure 7.2: 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.



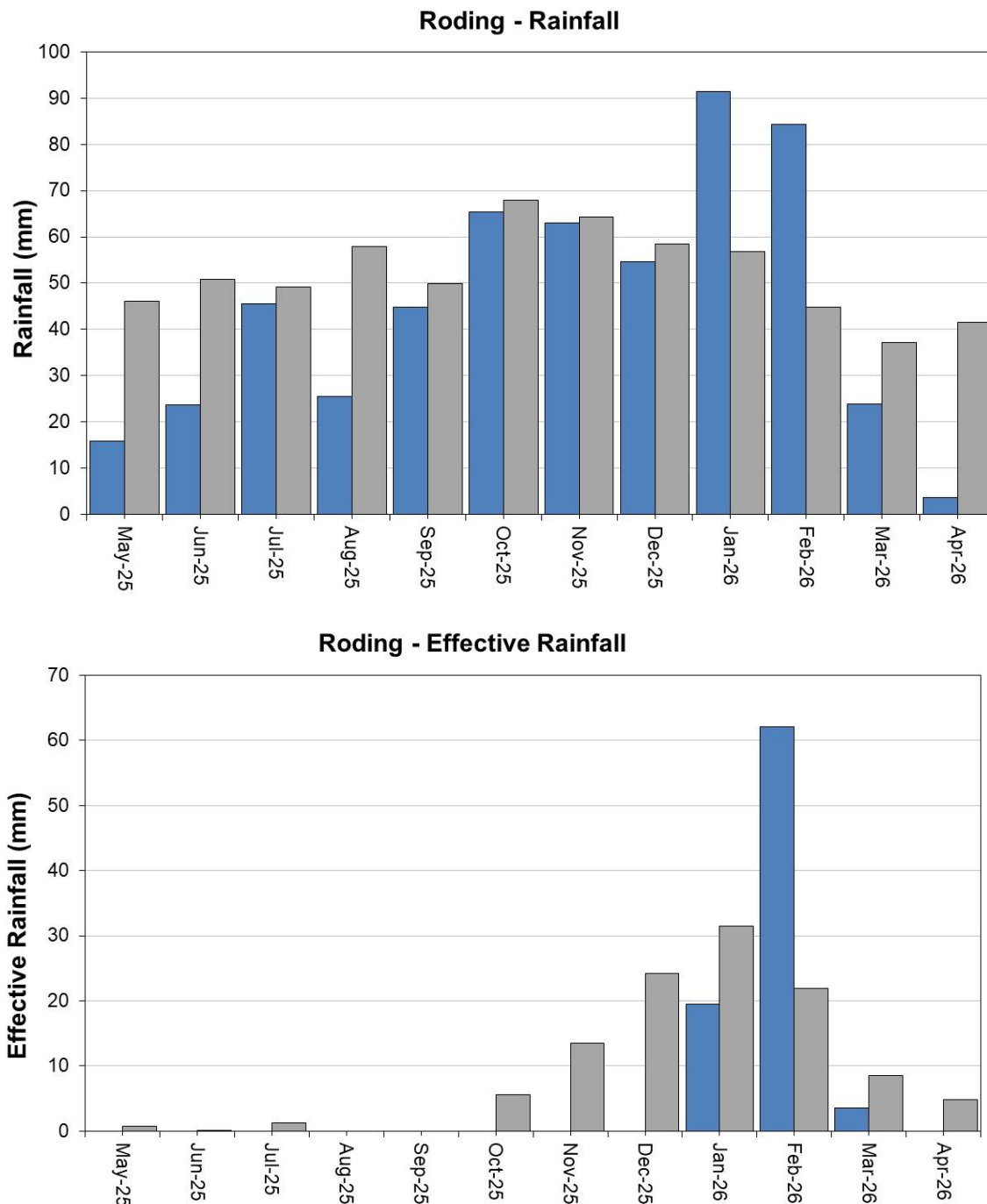
Source: Environment Agency, 2026

## 8 Roding Catchment

### 8.1 Roding Rainfall and Recharge chart

Figure 8.1: Monthly rainfall and recharge totals for the past 12 months compared to the 1991 to 2020 long term average for each region and for England.

■ Monthly total rainfall (mm)      ■ Long term average rainfall (mm)

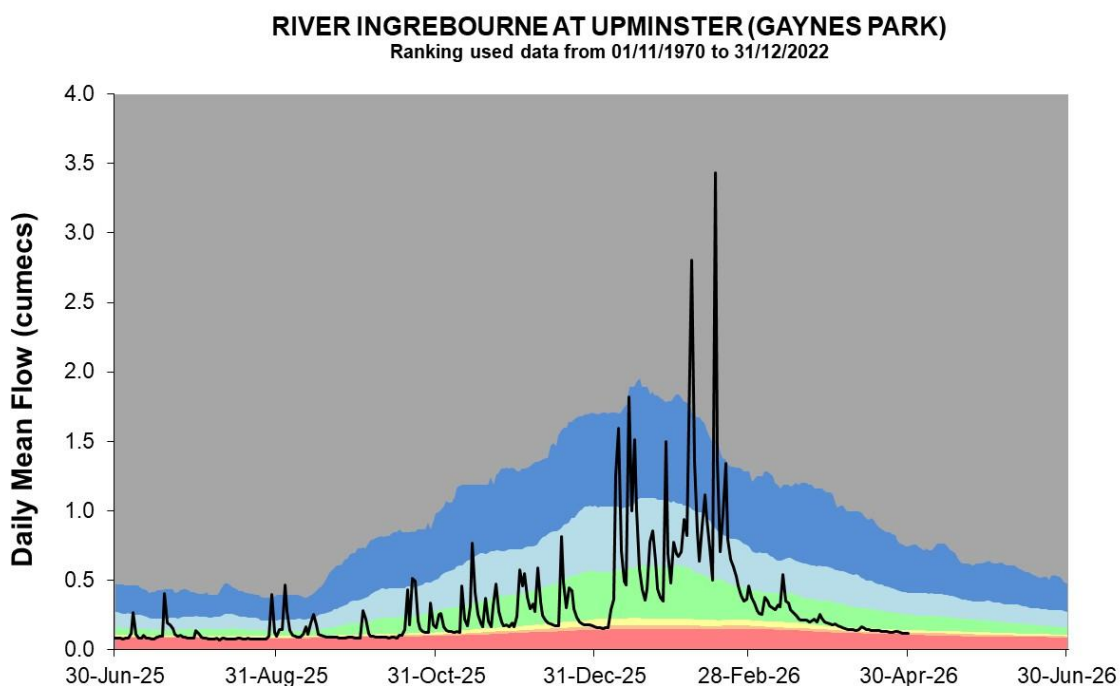
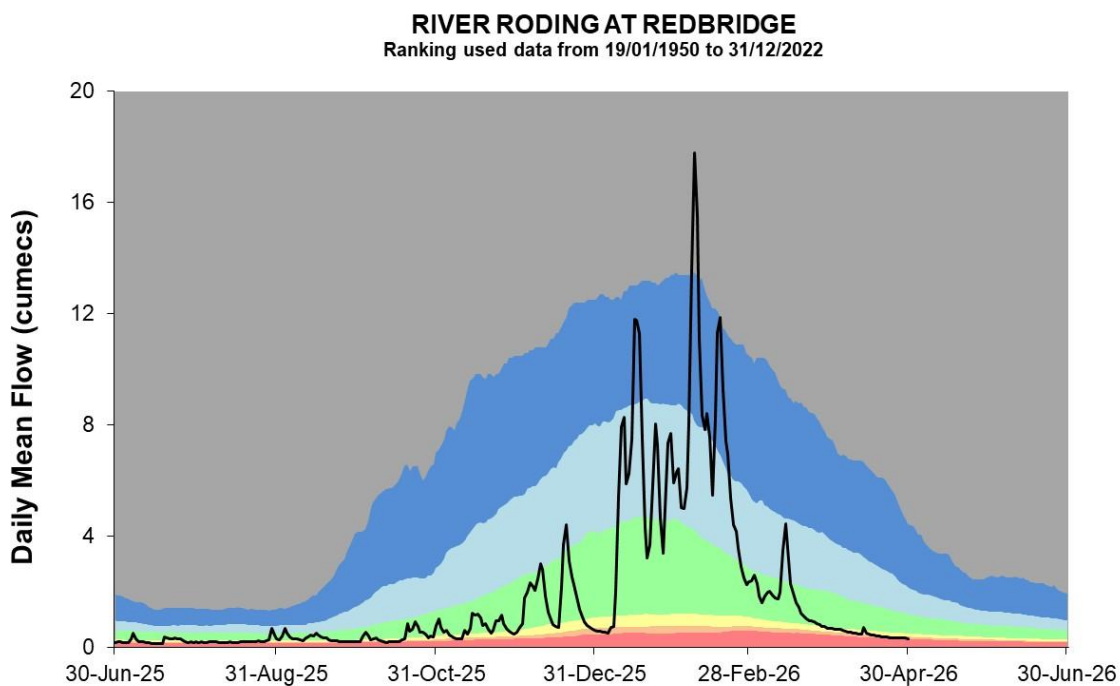


HadUK rainfall data (Source: Met Office. Crown copyright, 2026)

EA Soil Moisture Model effective rainfall data (Source: Environment Agency, 2026)

## 8.2 Roding River flow charts

Figure 8.2: 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.

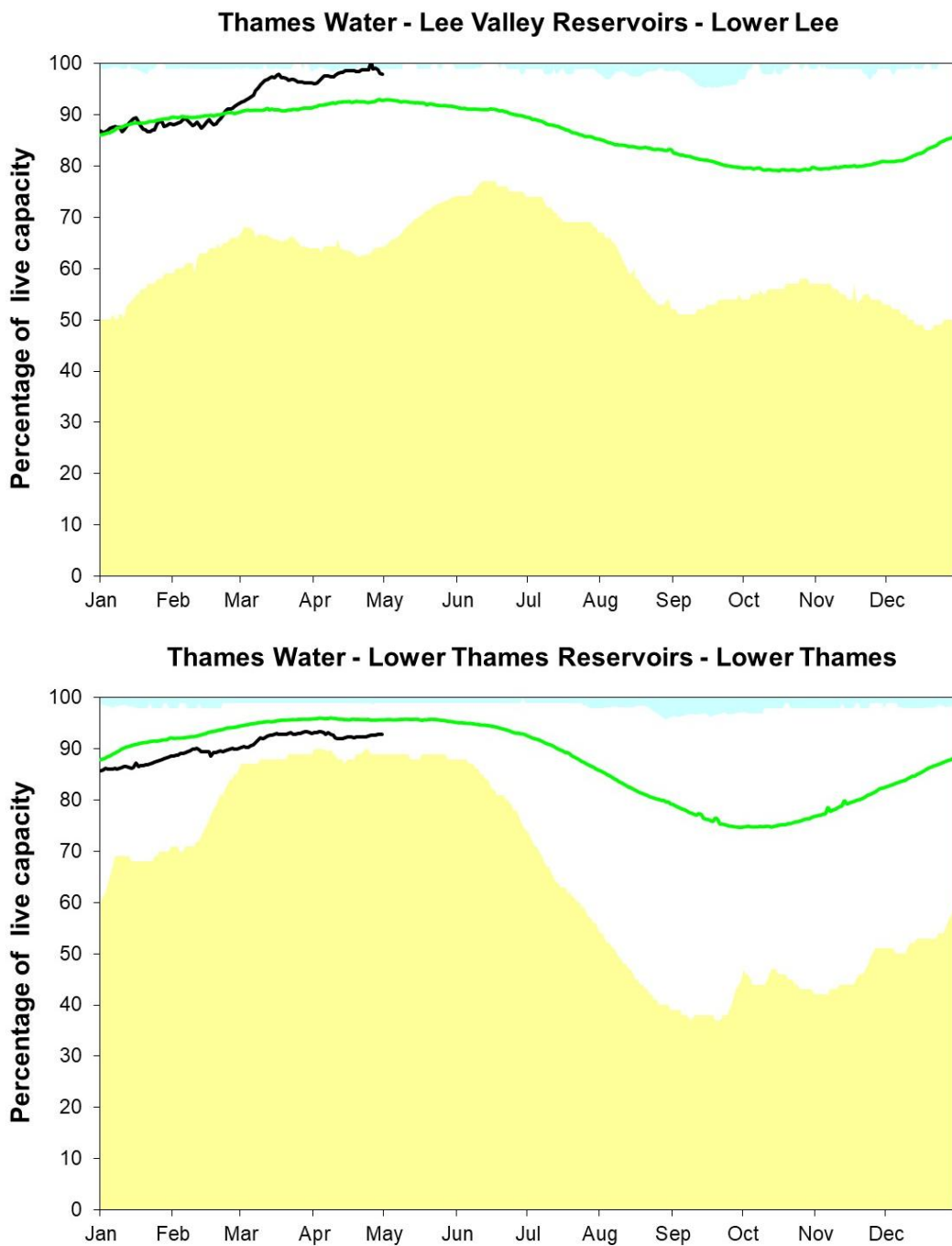


Source: Environment Agency, 2026

## 9 Reservoir stocks

Figure 9.1: End of month reservoir stocks for the Lower Thames reservoir group and the Lee Valley reservoir group 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.

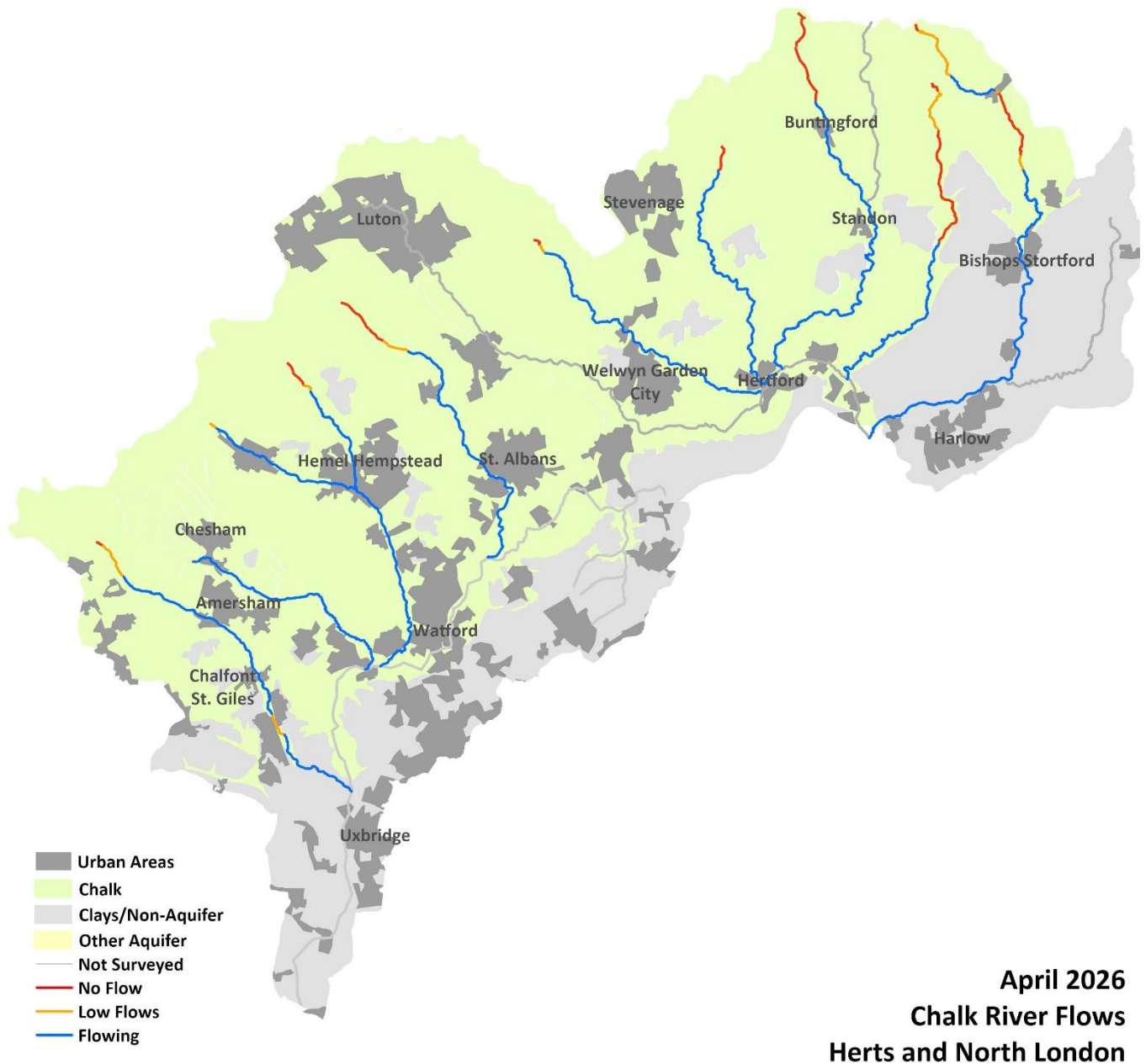
Below minimum
  Above maximum
  Average
  Latest data



Source: water companies, 2026

# 10 Chalk Rivers

Figure 10.1: Length of Chalk Rivers surveyed during the month and categorised as: Flowing, Low Flows, No Flow or Not Surveyed.



Source: Environment Agency, 2026 © Ordnance Survey Crown Copyright and Database Rights 2026 AC0000807064

# 11 Glossary

## 11.1 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 ( $\text{m}^3\text{s}^{-1}$ ).

### **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).

## 11.2 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.

## 12 Appendices

### 12.1 Rainfall table

Hydrological area	Apr 2026 total rainfall in mm	Apr 2026 rainfall long term average 1991 to 2020	Apr 2026 rainfall % of long term average 1991 to 2020	Summer Apr 2026 to Apr 2026 total rainfall in mm	Summer Apr 2026 to Apr 2026 rainfall % of long term average 1991 to 2020
Chilterns East Colne	7	52	13	7	13
Lee Chalk	3	45	7	3	7
Lower Lee	5	44	10	4	10
North London	6	45	13	6	12
Roding	4	41	9	4	8
Herts and North London total	5	46	10	5	10

## 12.2 Rainfall banding table

Hydrological area	Apr 2026 band	Feb 2026 to Apr 2026 cumulative band	Nov 2025 to Apr 2026 cumulative band	May 2025 to Apr 2026 cumulative band
Chilterns East Colne	Exceptionally low	Normal	Above normal	Normal
Lee Chalk	Exceptionally low	Normal	Above normal	Normal
Lower Lee	Exceptionally low	Normal	Above normal	Normal
North London	Exceptionally low	Normal	Normal	Normal
Roding	Exceptionally low	Normal	Normal	Below normal

## 12.3 Effective Rainfall table

Hydrological area	Apr 2026 total effective rainfall in mm	Apr 2026 effective rainfall long term average 1991 to 2020 in mm	Apr 2026 effective rainfall % of long term average 1991 to 2020	Summer Apr 2026 to Apr 2026 total effective rainfall in mm	Summer Apr 2026 to Apr 2026 effective rainfall % of long term average 1991 to 2020
Chilterns East Colne	0	13	0	0	0
Lee Chalk	0	8	0	0	0
Lower Lee	0	5	0	0	0
North London	0	5	0	0	0
Roding	0	5	0	0	0
Herts and North London total	0	7	0	0	0

## 12.4 Soil Moisture Deficit table

Hydrological area	Apr 2026 end of month Soil Moisture Deficit in mm	Apr 2026 end of month Soil Moisture Deficit long term average 1991 to 2020 in mm	Mar 2026 end of month Soil Moisture Deficit in mm	Mar 2026 end of month Soil Moisture Deficit long term average 1991 to 2020 in mm
Chilterns East Colne	75	29	19	11
Lee Chalk	77	43	20	23
Lower Lee	77	36	20	14
North London	77	36	20	15
Roding	78	37	20	16
Herts and North London total	77	36	20	16

## 12.5 River flows table

Site name	River	Catchment	Apr 2026 band	Mar 2026 band
Colney Street (Hansteads)	Ver	Colne	Above normal	Above normal
Croxley Green	Gade	Colne	Normal	Above normal
Denham Lodge	Misbourne	Colne	Normal	Normal
Denham Colne	Colne	Colne	Normal	Normal
Howe Green (Water Hall)	Lee	Upper Lee	Normal	Above normal
Panshanger	Mimram	Upper Lee	Above normal	Above normal
Wareside (Mardock)	Ash	Upper Lee	Normal	Normal
Feildes Weir (naturalised)	Lee	Upper Lee	Normal	Normal
Brent (Monks Park)	Brent	North London	Below normal	Normal
Cranford (Cranford Park)	Crane	North London	Notably low	Normal
Redbridge	Roding	Roding, Beam and Ingrebourne	Notably low	Normal
Upminster (Gaynes Park)	Ingrebourne	Roding, Beam and Ingrebourne	Below normal	Normal

## 12.6 Groundwater table

Site name	Aquifer	Apr 2026 band	Mar 2026 band
Ashley Green	Mid-Chilterns Chalk	Normal	Normal
Ballington Farm	Mid-Chilterns Chalk	Normal	Normal
Amersham Road	Mid-Chilterns Chalk	Normal	Normal
Wapseys Wood	Mid-Chilterns Chalk	Normal	Normal
Lilley Bottom	Upper Lee Chalk	Normal	Normal
Crescent Cottages	Upper Lee Chalk	Normal	Above normal
Cave Gate	Upper Lee Chalk	Above normal	Notably high
Hixham Hall	Upper Lee Chalk	Above normal	Above normal
Therfield Rectory	Upper Lee Chalk	Normal	Normal

## 12.7 Abstraction licence flow constraints

Number of flow constraints in force between 1 and 6 April 2026	Number of flow constraints in force between 7 and 12 April 2026	Number of flow constraints in force between 13 and 19 April 2026	Number of flow constraints in force between 20 and 26 April 2026	Number of flow constraints in force between 27 April and 3 May 2026
3	2	3	4	4