

## East of England

### Summary – 20 February 2019

Rainfall	January 2019	(DRT data)	February 2019	(EA data)	13/02/2019 to 19/02/2019
	mm.	%LTA	1st to 19th mm.	%LTA	mm.
<b>EAST OF ENGLAND</b>	25.81	50.79	28.6	76.2	0.9
<b>Lincs&amp;Northants AREA</b>	19.82	38.58	29.0	73.7	1.6
Louth Grimsby and Ancholme	19.34	35.14	22.9	55.6	2.0
Steeping Great Eau and Long Eau	18.93	32.36	37.3	87.4	1.2
Witham to Chapel Hill	19.08	37.53	25.3	64.5	2.3
South Forty Foot and Hobhole	16.65	33.75	31.7	83.8	1.7
Upper Welland and Nene	24.26	46.32	28.8	70.3	0.9
Lower Welland and Nene	17.77	38.30	29.1	81.7	1.5
<b>Cambs&amp;Beds AREA</b>	23.33	47.32	27.3	75.3	0.7
Upper Bedford Ouse	24.47	44.89	35.2	85.9	2.6
Lower Bedford Ouse	23.20	49.95	28.1	79.4	0.9
Central Area Fenland	21.25	47.47	23.7	71.1	0.2
Cam	23.09	50.90	22.5	67.8	0.1
NW Norfolk and Wissey	25.86	46.74	32.1	80.8	0.1
Little Ouse and Lark	23.11	44.90	23.0	64.3	0.2
<b>Essex, Norfolk&amp;Suffolk AREA</b>	28.20	53.91	29.8	80.8	0.5
North Norfolk	33.28	59.37	35.2	90.6	0.3
Broadland Rivers	34.27	61.86	32.2	80.6	0.5
East Suffolk	25.24	48.14	24.3	65.5	0.4
North Essex	24.07	48.31	25.5	73.9	0.8
South Essex	21.25	46.39	31.1	98.7	0.6

SMD	19/02/2019
	SMD mm.
Lincs&Northants AREA	17
Cambs&Beds AREA	16
Essex, Norfolk&Suffolk AREA	12
EAST OF ENGLAND	15

Note: Previous month's rainfall totals are from EA Daily Rainfall Tool. Current month totals based on limited number of EA gauges (unvalidated).

Author: [Hydrology and Operations](#) Contact details: 02030251863

*All data are provisional and may be subject to revision. The views expressed in this document are not necessarily those of the Environment Agency. Its officers, servants or agents accept no liability for any loss or damage arising from the interpretation or use of the information, or reliance upon views contained herein.*

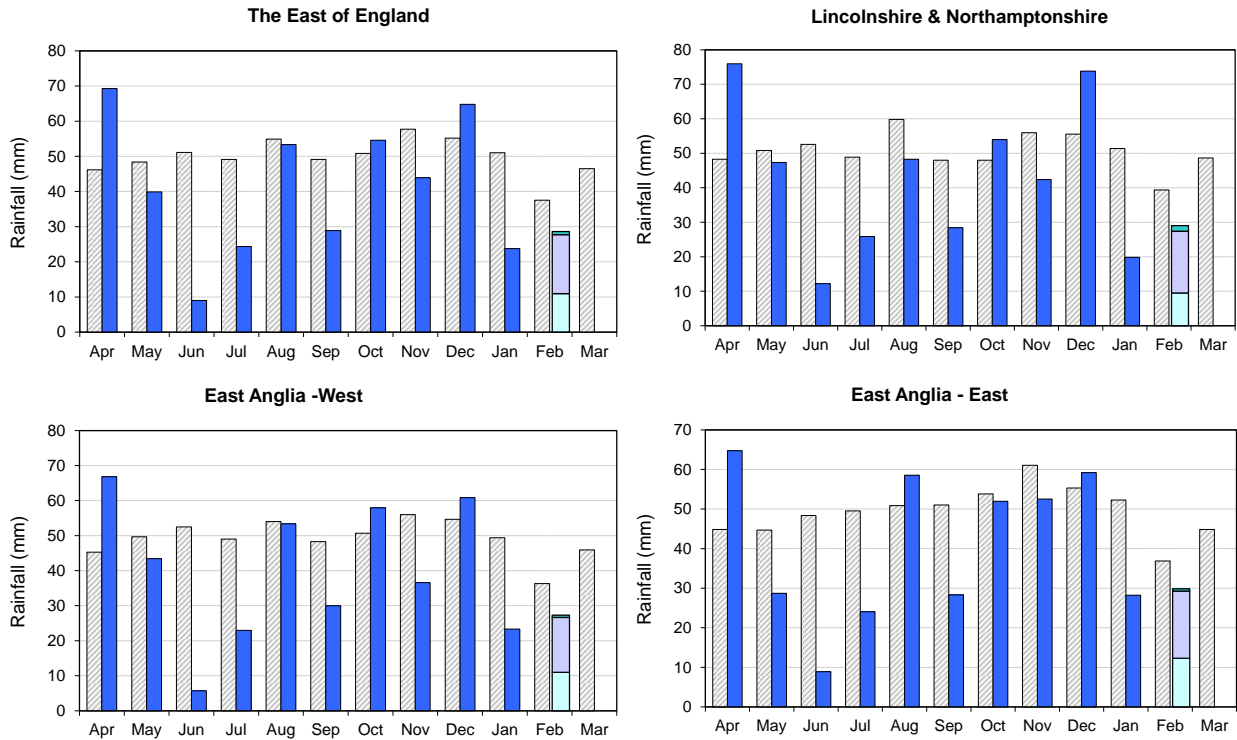
<b>Reservoir</b>	18/02/2019
	% full
Rutland	89
Pitsford	85
Hollowell	66
Ravensthorpe	71
Covenham	97
Grafham	75
Alton	80
Ardleigh	82
Abberton	81
Hanningfield	71

<b>River Flows</b>	February-2019		
Site	monthly mean	%LTA	Class
	to date (m3/s)		
Rase Bishopbridge, ANCHOLME	1.163	144	Above normal
Louth Weir, LUD	0.379	52	Below normal
Partney, LYMN & STEEPING	0.709	96	Normal
Claypole, UPPER WITHAM -SOUTH	1.725	55	Below normal
Ashley, WELLAND MKT.HARB-ROCKINGHM	1.749	66	Normal
Upton Mill Total, NENE - KISLINGBURY BRANCH	1.784	69	Normal
Willen, OUZEL	2.605	81	Normal
Offord(Gross Flows), OUSE (AN)	19.182	71	Normal
Denver Ely Ouse, OUSE (AN)	13.388	52	Below normal
Dernford, CAM (AN)	0.426	30	Notably low
Abbey Heath, LITTLE OUSE	3.009	48	Below normal
Heacham, HEACHAM	0.110	35	Below normal
Cappenham, TOVE	1.465	84	Normal
Roxton, OUSE (AN)	14.233	73	Normal
Marham, NAR	0.853	56	Below normal
Blunham, IVEL	2.639	67	Below normal
Temple, LARK	0.763	41	Notably low
Northwold Total, WISSEY	2.074	72	Normal
INGWORTH, BURE	1.394	94	Normal
SWANTON MORLEY TOTAL FLOW, WENSUM	3.832	94	Normal
NEEDHAM WEIR TOTAL, WAVENEY LOWER	1.833	57	Normal
LEXDEN, COLNE (AN)	0.955	50	Below normal
SPRINGFIELD, CHELMER	0.834	45	Below normal

# Rainfall

February 2019

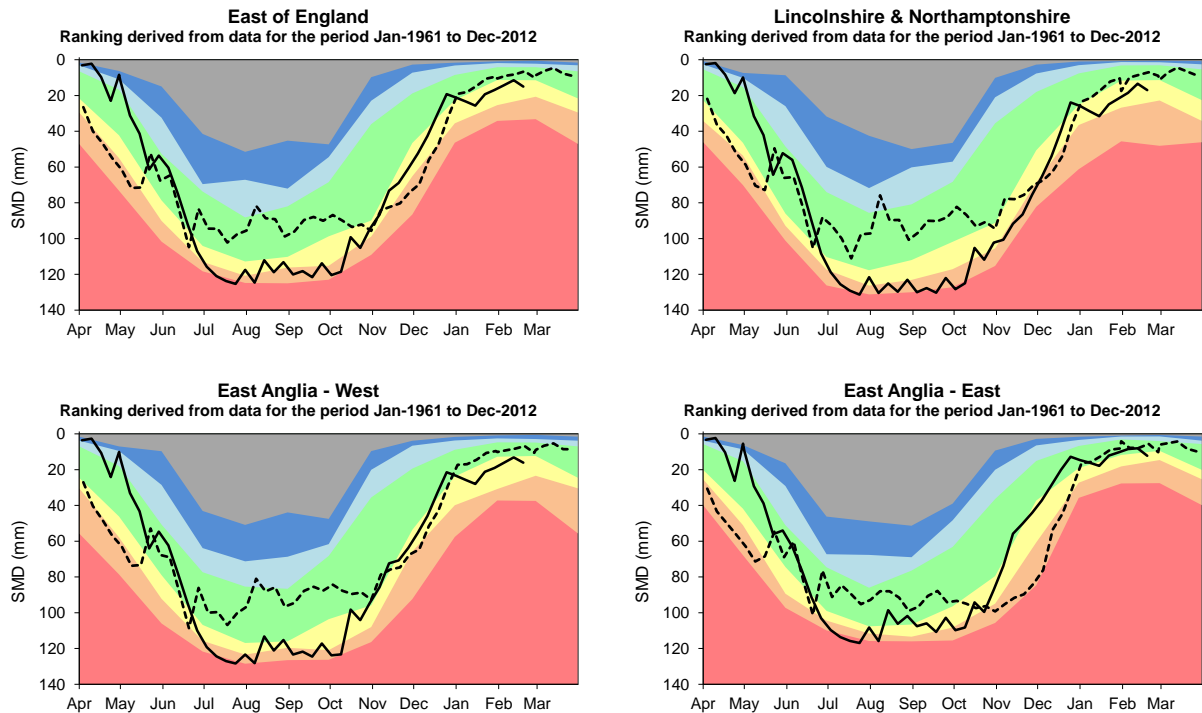
■ Monthly total rainfall (mm)         Long-term average rainfall (mm)  
■ February rainfall (provisional)     ■ 1st to 5th     ■ 6th to 12th     ■ 13th to 19th     ■ period 4



# Soil Moisture Deficit

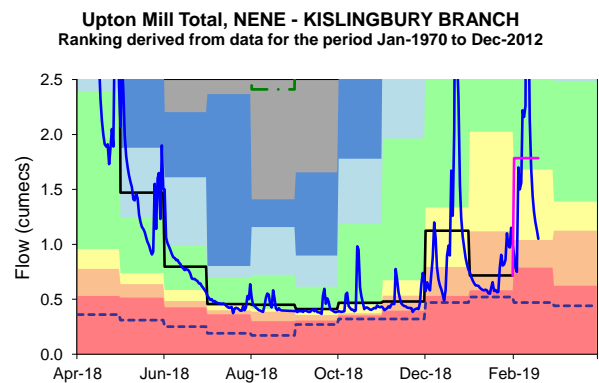
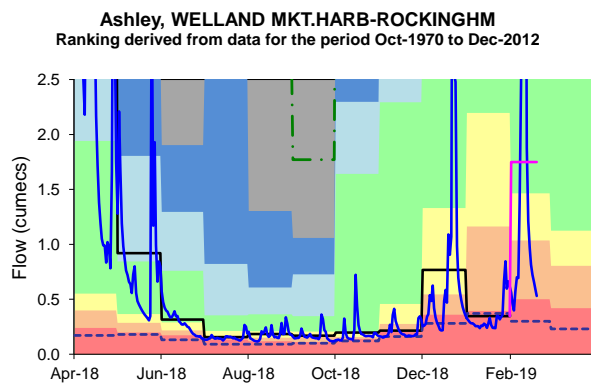
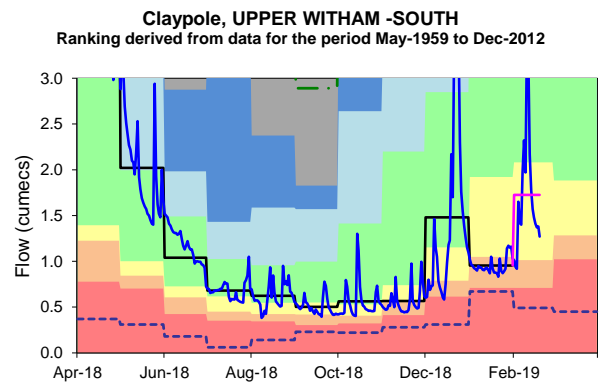
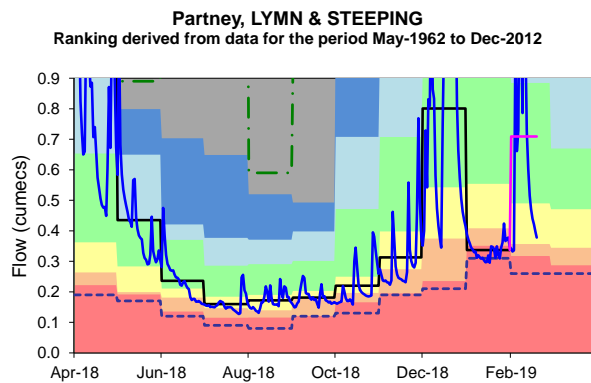
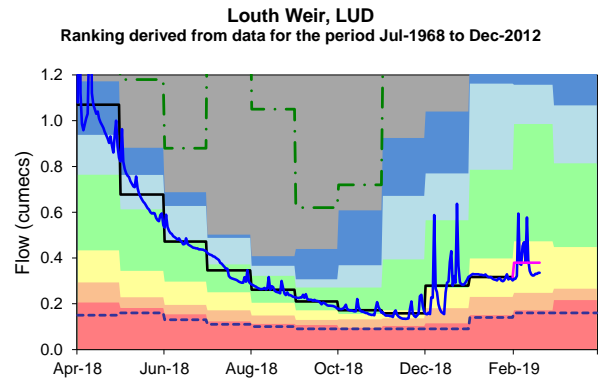
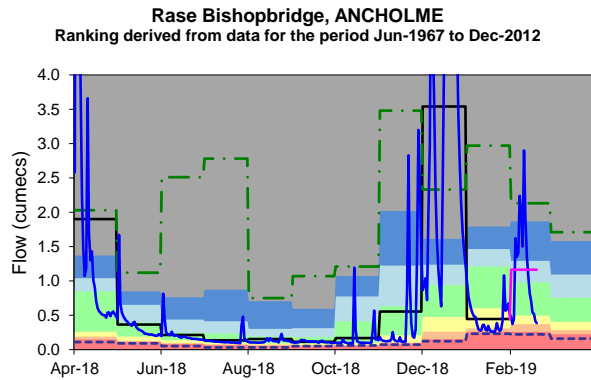
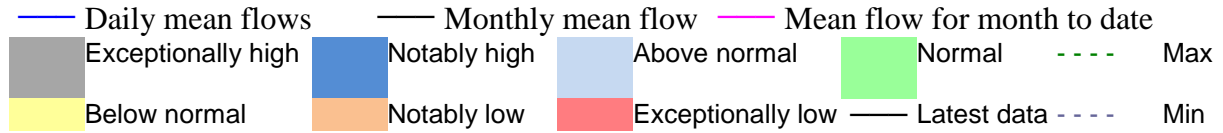
Data based on MORECS dataset (Met Office © Crown Copyright)

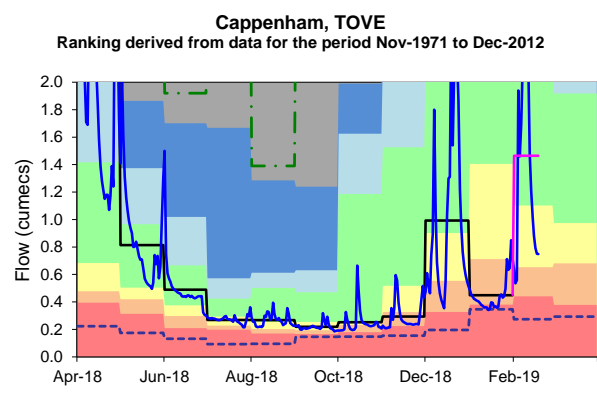
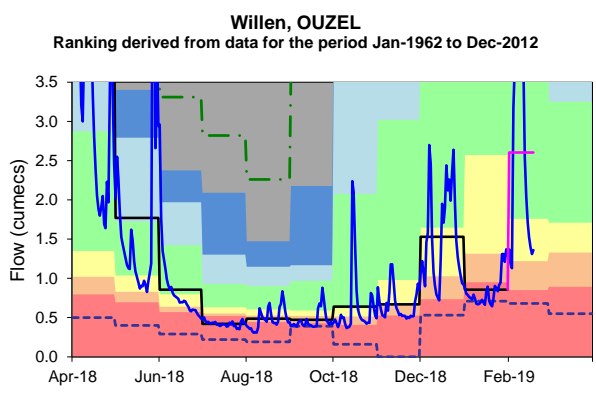
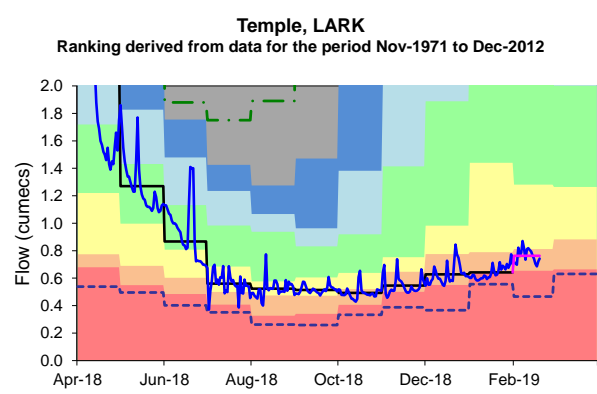
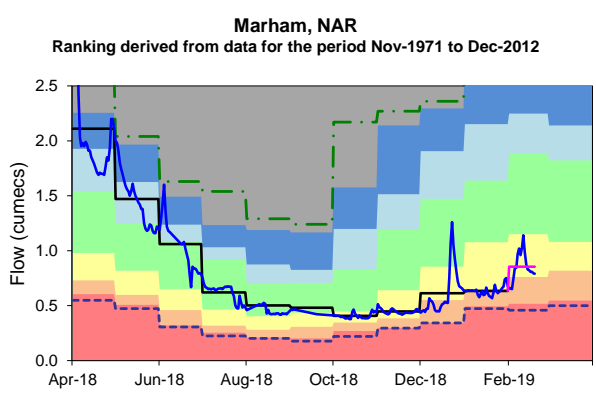
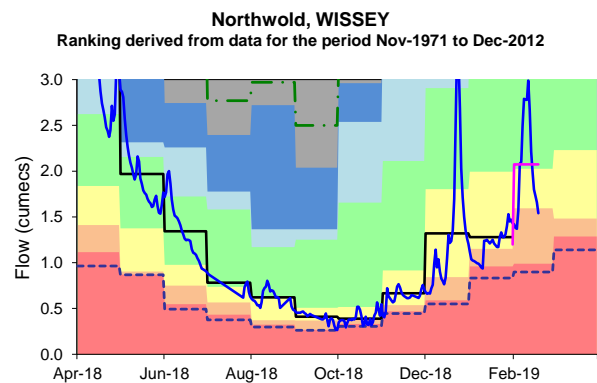
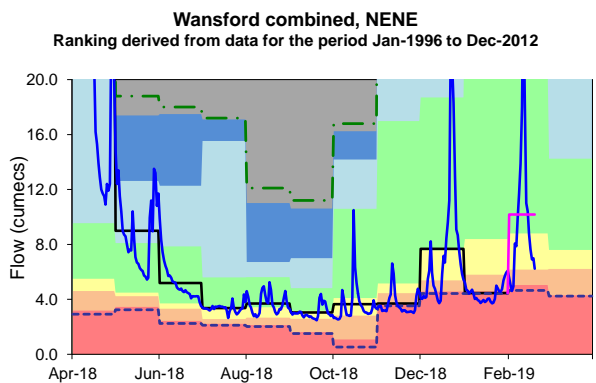
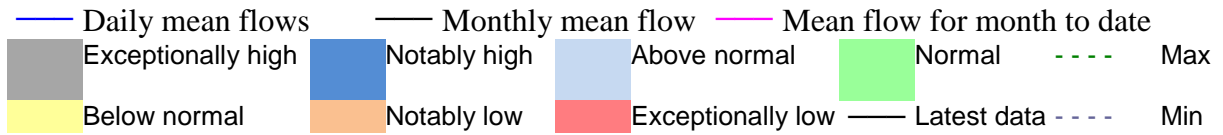
— 2018-19     - - - 2017-18  
■ Exceptionally high     ■ Notably high     ■ Above normal     ■ Normal  
■ Below normal     ■ Notably low     ■ Exceptionally low     — Latest data

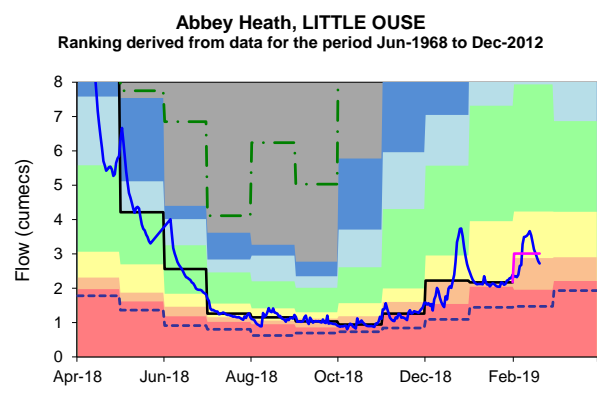
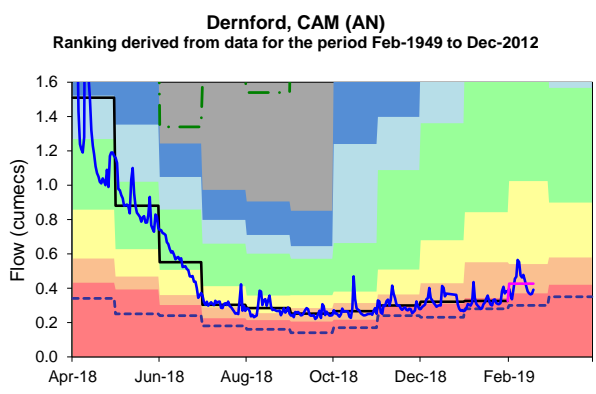
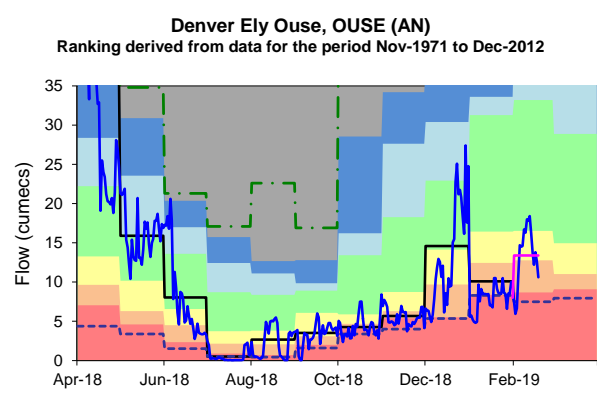
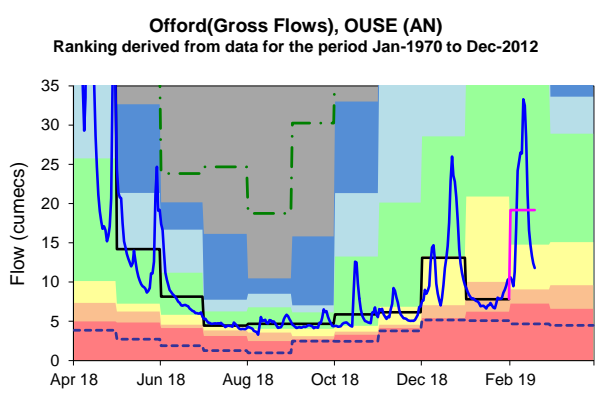
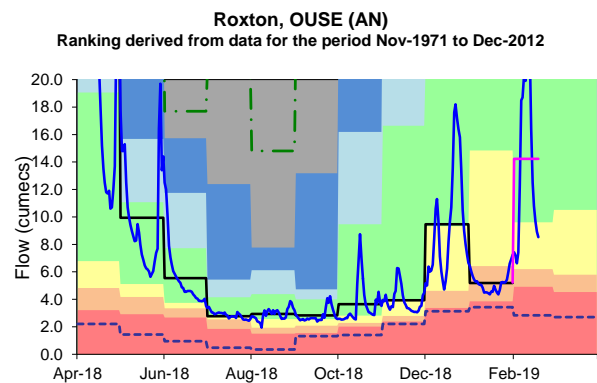
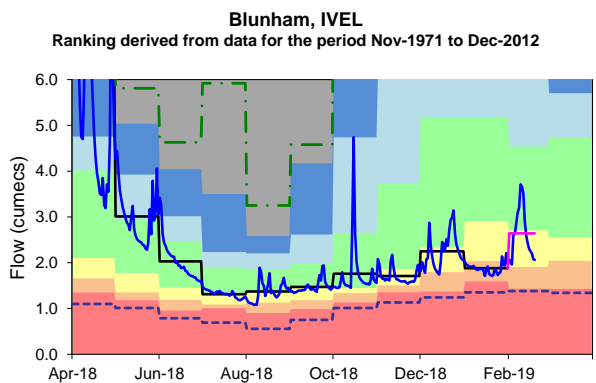
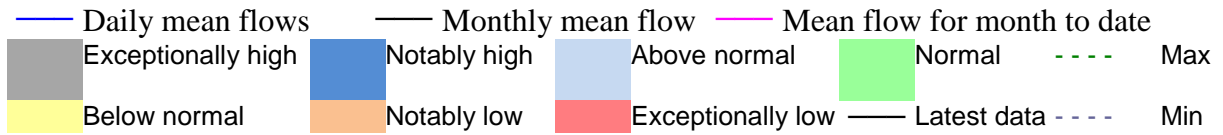


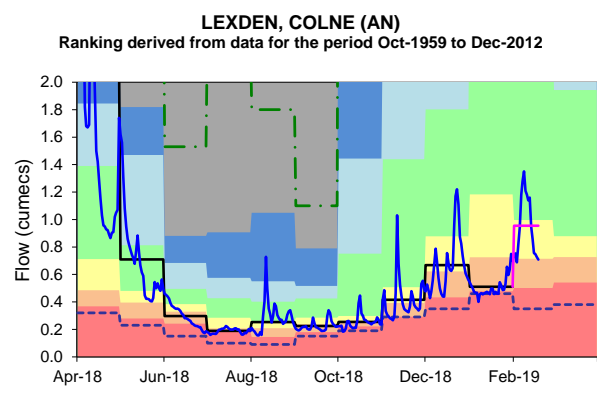
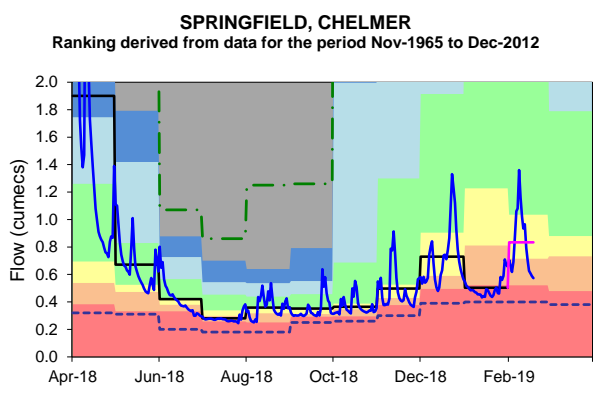
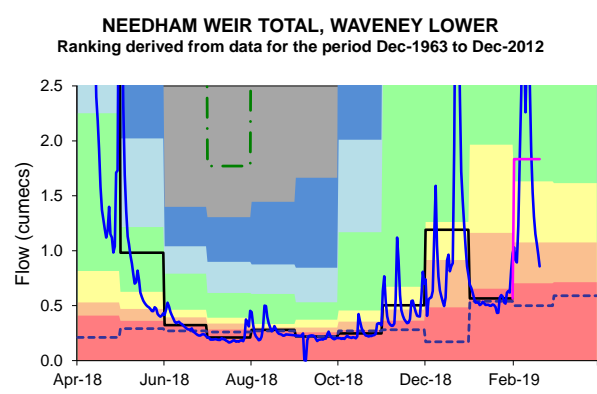
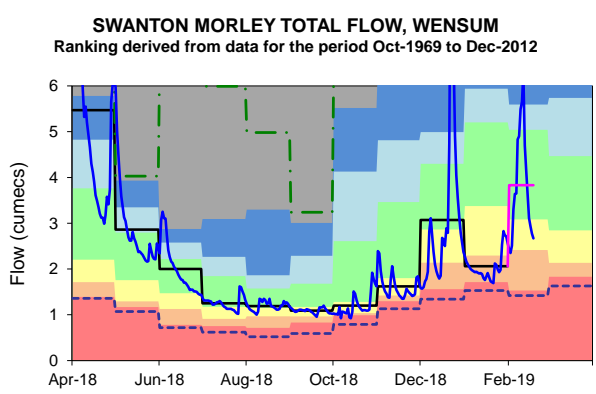
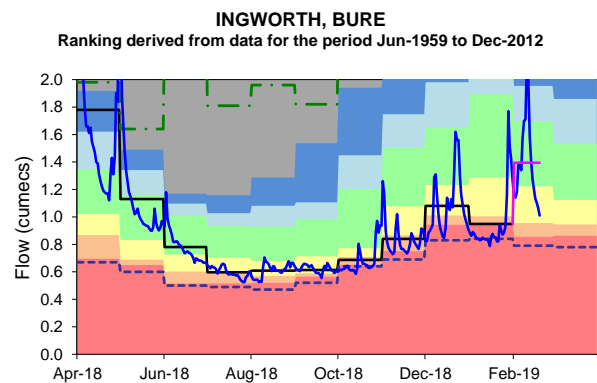
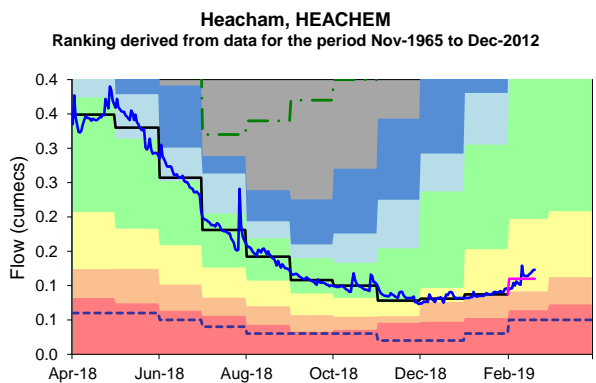
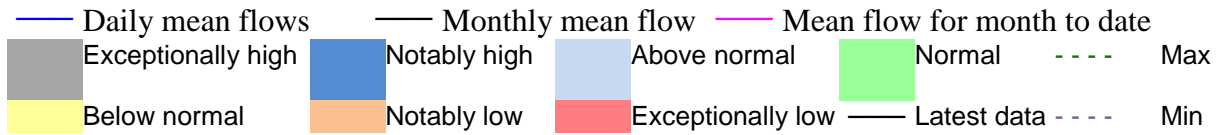
# River Flow

February 2019



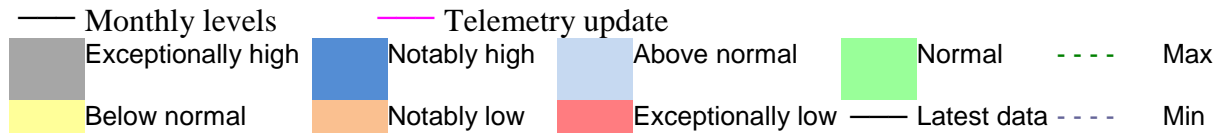




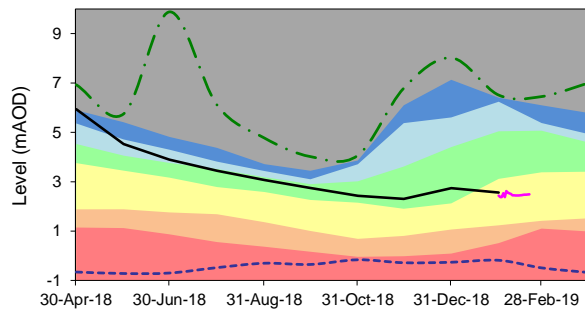


# Groundwater Levels

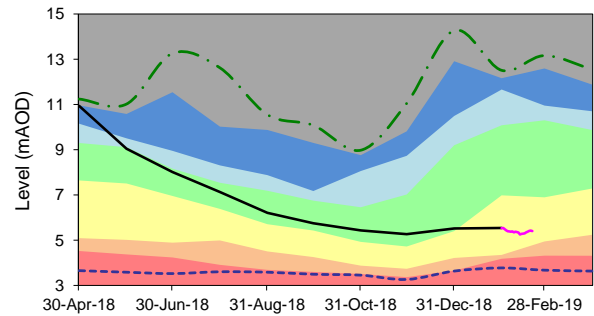
February 2019



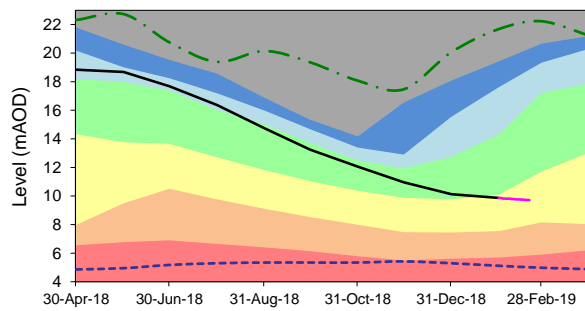
**5/108 Barton Horkstow Road - N Lincs Chalk**  
 Ranking derived from data for the period Apr-1980 to Dec-2012



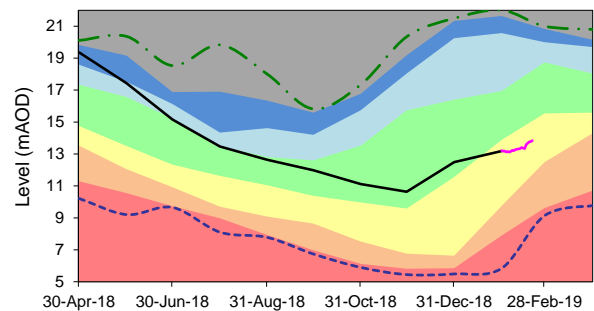
**5/016 Burnham LRD - N Lincs Chalk**  
 Ranking derived from data for the period Mar-1977 to Dec-2012



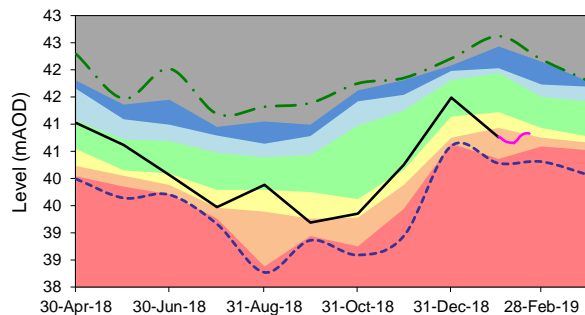
**5/070 Grainsby - Lincs Chalk**  
 Ranking derived from data for the period Oct-1977 to Dec-2012



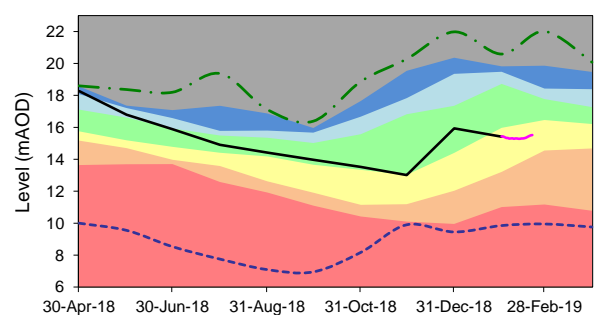
**3/901 ASLACKBY - Lincs Limestone**  
 Ranking derived from data for the period Jan-1981 to Nov-2012



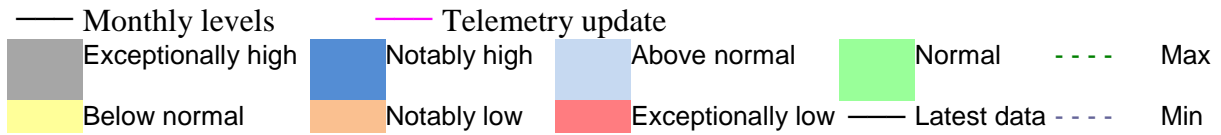
**1/610 Grange de Lings - Lincs Limestone**  
 Ranking derived from data for the period Mar-1975 to Dec-2012



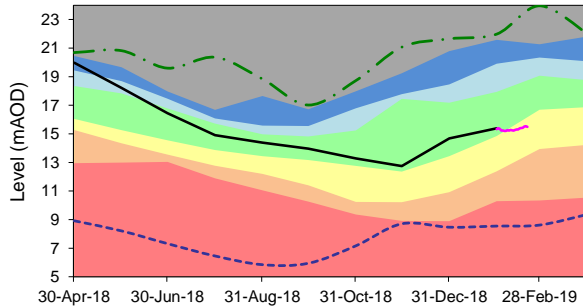
**2/544 Leasingham Exploratory - Lincs Limestone**  
 Ranking derived from data for the period Sep-1972 to Dec-2012



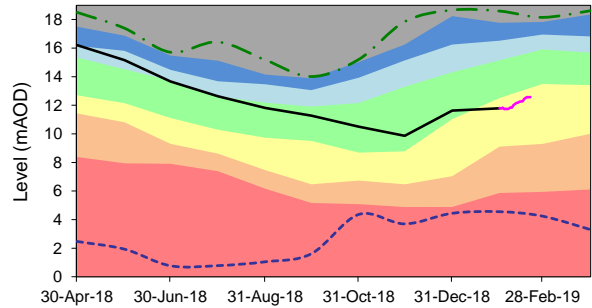




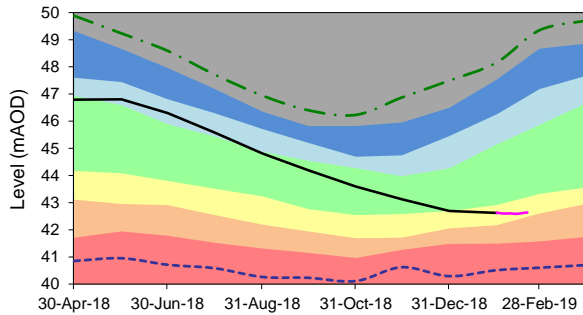
**2/546 Grange Farm Aswarby - Lincs Limestone**  
 Ranking derived from data for the period Dec-1970 to Nov-2012



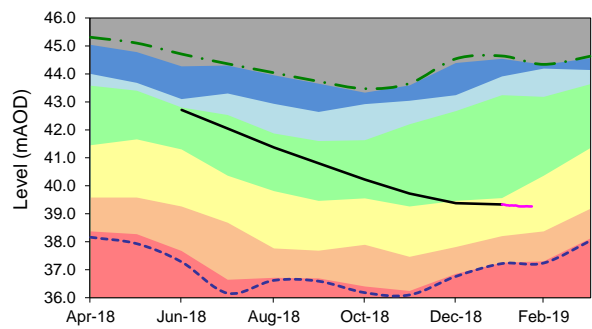
**3/621 Hanthorpe - Limestone**  
 Ranking derived from data for the period Jul-1972 to Dec-2012



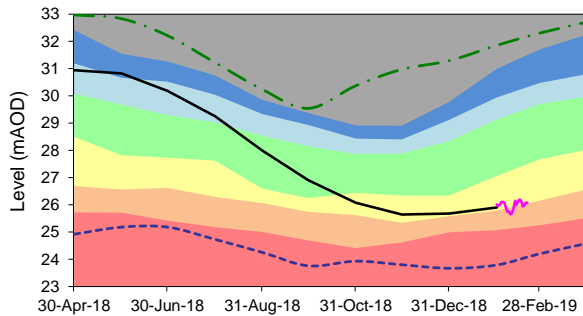
**TF81/010 Washpit Farm Rougham- Chalk**  
 Ranking derived from data for the period May-1950 to Dec-2012



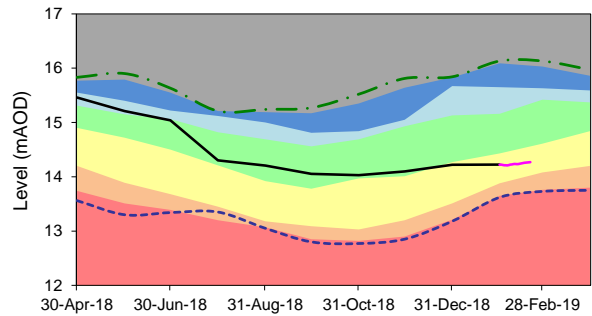
**BIRCHAM NEWTON**  
 Ranking derived from data for the period Mar-1995 to Dec-2012

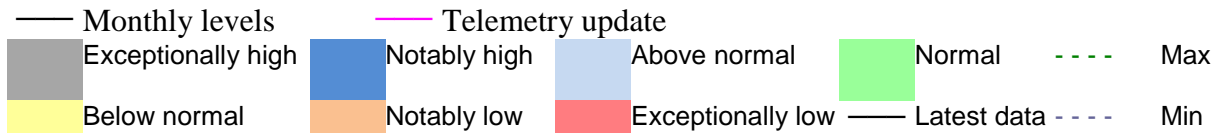


**TM08/003 Kenninghall - Little Ouse Chalk**  
 Ranking derived from data for the period Aug-1973 to Dec-2012

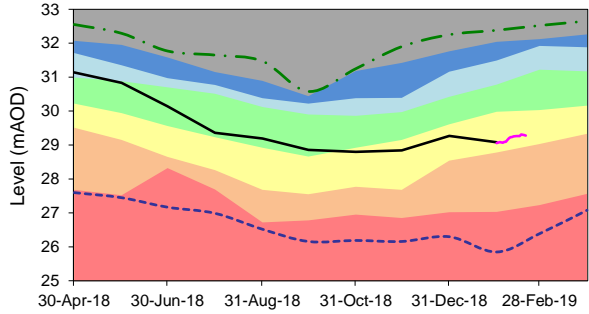


**TL66/089 NEWMARKET - Snail Chalk**  
 Ranking derived from data for the period Feb-1983 to Dec-2012

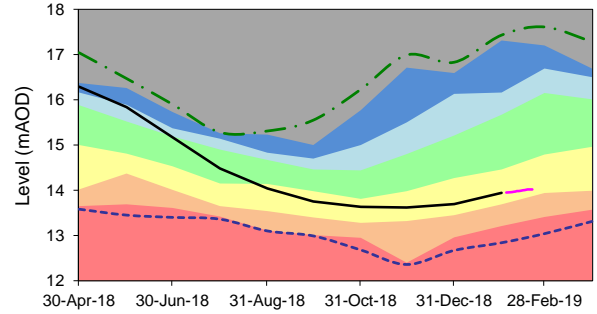




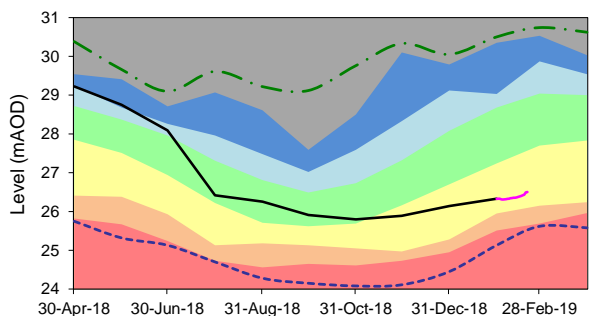
**TL86/171 BURY ST EDMUNDS - U Lark Chalk**  
 Ranking derived from data for the period May-1983 to Dec-2012



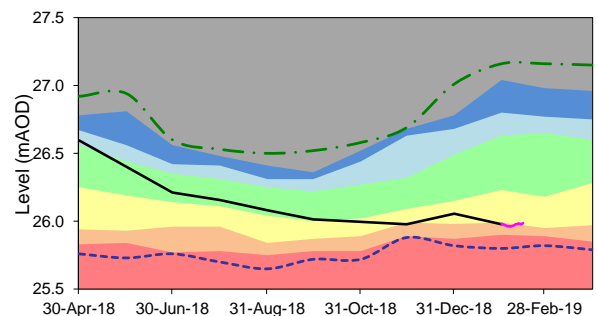
**TL45/017 Gog Magog Stapleford- Cam Chalk**  
 Ranking derived from data for the period Jan-1980 to Dec-2012



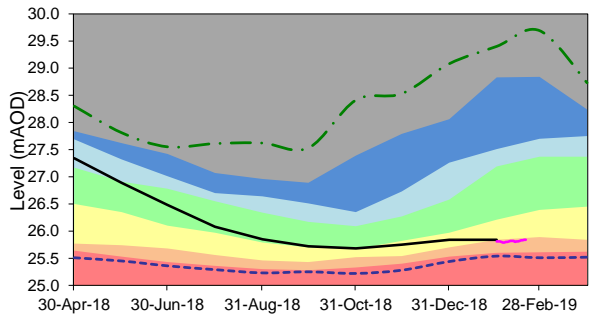
**TL54/028 LINTON - Cam Chalk**  
 Ranking derived from data for the period Jan-1980 to Dec-2012

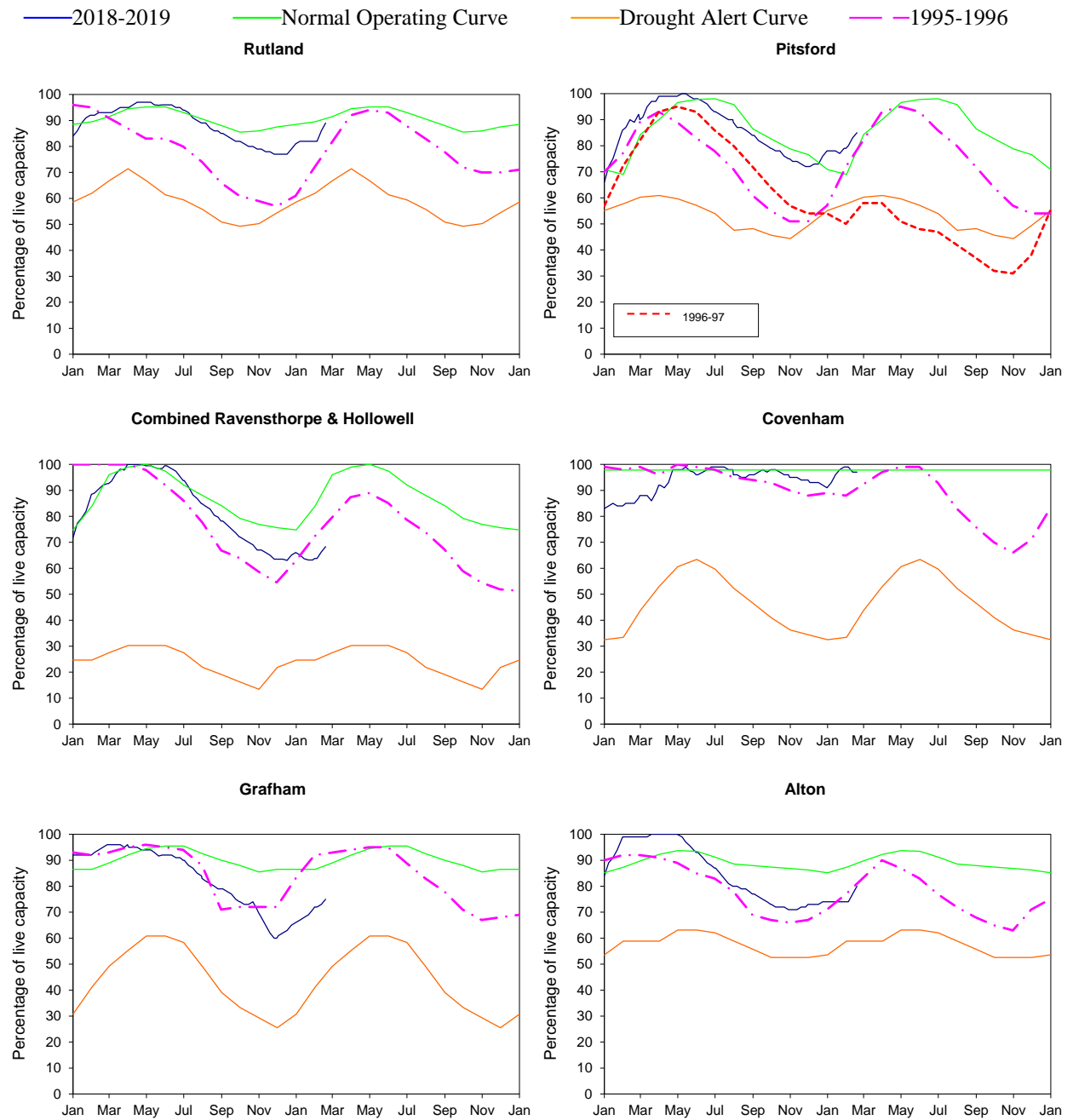


**TL14/001 Biggleswade - Ivel Sandstone**  
 Ranking derived from data for the period Mar-1968 to Dec-2012

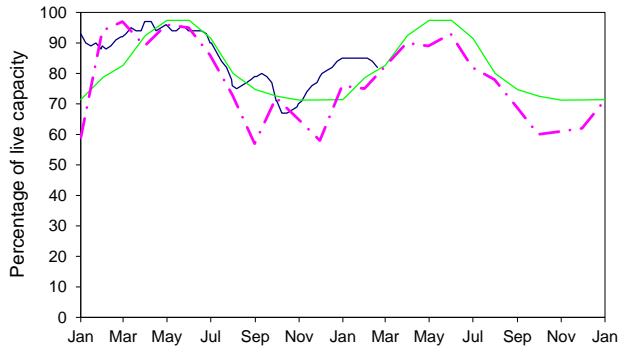


**TL84/410 SMEETHAM HALL - Essex Chalk**  
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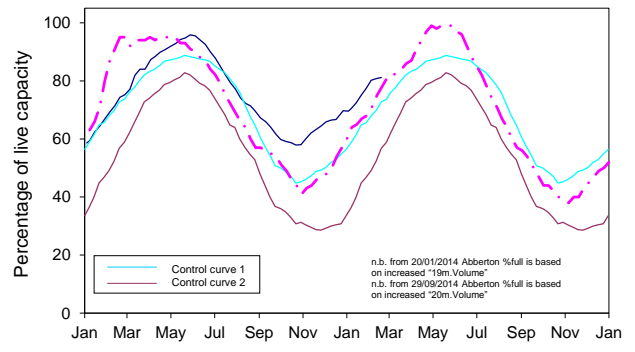




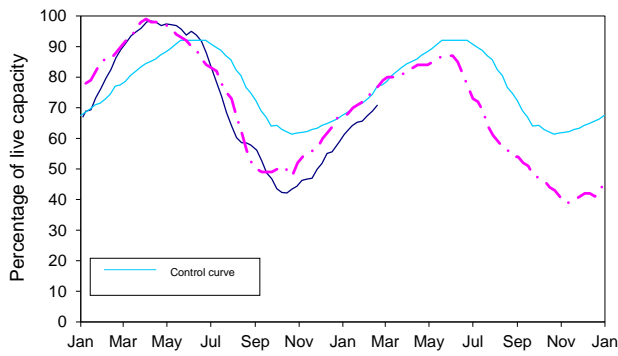
— 2018-2019      — Normal Operating Curve  
**Ardleigh**



— Drought Alert Curve      — 1995-1996  
**Abberton**



**Hanningfield**



## Glossary

### Term

Aquifer

Areal average rainfall

Artesian

Artesian borehole

Cumecs

Effective rainfall

Flood Alert/Flood Warning

Groundwater

Long term average (LTA)

mAOD

MORECS

Naturalised flow

NCIC

Recharge

Reservoir gross capacity

Reservoir live capacity

Soil moisture deficit (SMD)

### Categories

Exceptionally high

Notably high

Above normal

Normal

Below normal

Notably low

Exceptionally low

### Definition

A geological formation able to store and transmit water.

The estimated average depth of rainfall over a defined area. Expressed in depth of water (mm).

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.

Borehole where the level of groundwater is above the top of the borehole and groundwater flows out of the borehole when unsealed.

Cubic metres per second ( $m^3s^{-1}$ )

The rainfall available to percolate into the soil or produce river flow. Expressed in depth of water (mm).

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.

The water found in an aquifer.

The arithmetic mean calculated from the historic record, usually based on the period 1961-1990. However, the period used may vary by parameter being reported on (see figure captions for details).

Metres Above Ordnance Datum (mean sea level at Newlyn Cornwall).

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 x 40 km grid.

River flow with the impacts of artificial influences removed. Artificial influences may include abstractions, discharges, transfers, augmentation and impoundments.

National Climate Information Centre. NCIC area monthly rainfall totals are derived using the Met Office 5 km gridded dataset, which uses rain gauge observations.

The process of increasing the water stored in the saturated zone of an aquifer. Expressed in depth of water (mm).

The total capacity of a reservoir.

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 (e.g. storage held back for emergency services, operating agreements or physical restrictions). May also be referred to as 'net' or 'deployable' capacity.

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).

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

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

Value likely to fall within this band 15% of the time

Value likely to fall within this band 44% of the time

Value likely to fall within this band 15% of the time

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

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