



METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT
OVER GREAT BRITAIN

SOIL MOISTURE DEFICIT AT 0900 GMT ON 17 SEPTEMBER 1980

The settled dry spell over England and Wales which had started at the end of August was brought to an end by the rain which fell in most places on September 4th and 5th. Drier weather reaching the extreme west on 5th spread eastwards to give all of England and Wales a dry day on 6th. Although many places had some rain on 7th (mainly less than 5 mm), East Anglia, the East Midlands, Lincolnshire and East Yorkshire remained dry throughout from 6th to 8th. September 9th was another generally wet day with more than 10 mm in parts of south west England and south Wales although some parts of Lincolnshire and East Anglia continued their dry spell. It continued generally unsettled but with many places in the southern part of the country having only small amounts of rainfall between 10th and 15th. The 16th, however, brought a wet end to the fortnight as a belt of mainly heavy rain crossed the country slowly from the west. Thunderstorms in association with this belt of rain were reported in northern England and in the Bracknell area. Rainfall amounts were rather variable with as little as 1 mm at Birmingham Airport and as much as 25 mm at Church Fenton in Yorkshire and 36 mm at Ludlow in Shropshire.

Scotland was very unsettled throughout the fortnight with very few places having a single dry day. Daily totals of 20 mm or more were reported in the periods 4th to 7th, 11th to 13th and 15th to 16th. The notable falls were 61 mm at Fort William on 6th, 57 mm at northern end of Loch Lomond on the 11th, the wettest day of the fortnight, and 39 mm at Fort William on 16th.

Rainfall was less than average over most of England and Wales with less than half the average in parts of Lincolnshire, Bedfordshire, Essex, Kent and the Salisbury Plain area. Almost all of Scotland had more than the average with more than twice the average occurring over much of the north west and three times the average at Fort William.

Soil moisture deficits under grass decreased (or soils remained at field capacity) during the fortnight over most of Scotland, England and Wales. Despite the decreases much of England and Wales is still a little above the average for mid-September.

With much of Scotland already being at or near to field capacity at the beginning of the fortnight large proportions of the rainfall were hydrologically effective. Many places in the highlands of north west Scotland had a weekly total of more than 100 mm.

RATES OF SUBSCRIPTION: £22.73 per season (post free)

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ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.)

AT 09 GMT ON 17 SEPTEMBER 1980

River Area	Areal Land Use Estimated S.M.D. mm	Change during the week ending 09 GMT on	
		17 September 1980 mm	10 September 1980 mm
Northumbrian	41.4	+ 1.3	+ 6.1
Yorkshire	54.8	- 8.9	+ 7.8
Trent	84.2	- 5.2	+ 12.7
Lincolnshire	107.5	+ 6.0	+ 20.2
Welland and Nene	97.8	+ 1.2	+ 9.5
Great Ouse	112.5	- 2.0	+ 0.6
Norfolk and Suffolk	113.9	- 5.8	+ 0.4
Essex	128.3	- 4.4	+ 3.5
Lee Division	124.7	- 4.5	+ 3.9
Thames Conservancy	121.0	- 3.9	+ 6.4
London Area	113.1	- 2.7	+ 12.7
Kent	91.4	- 4.7	- 1.5
Sussex	78.5	- 7.0	+ 1.1
Hampshire	101.0	- 3.5	+ 4.7
Isle of Wight	126.9	- 6.7	+ 2.7
Upper Thames	124.5	- 1.5	+ 6.3
Avon and Dorset	101.7	- 2.0	+ 7.8
Devon	59.0	- 2.5	- 2.9
Cornwall	57.2	- 3.3	- 5.3
Somerset	88.5	- 2.0	+ 4.9
Bristol Avon	117.2	- 5.6	+ 11.0
Severn	84.0	- 4.4	+ 5.7
Wye	65.7	- 8.6	+ 2.9
Usk	42.5	- 4.3	- 2.3
Glamorgan	15.7	- 2.1	- 6.7
South West Wales	22.8	- 5.1	- 3.6
Gwynedd	47.6	- 7.2	+ 0.5
Dee and Clwyd	48.5	- 7.3	+ 2.2
Mersey and Weaver	40.5	- 13.1	+ 5.5
Lancashire	29.9	- 10.9	+ 2.7
Cumbria	0.0	- 3.6	- 3.8

N.B. Apart from normal changes these differences also reflect retrospective adjustments after receipt of additional data.



