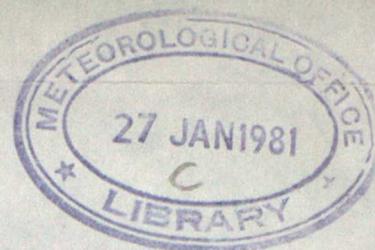


METEOROLOGICAL OFFICE



ESTIMATED SOIL MOISTURE DEFICIT AND POTENTIAL
EVAPOTRANSPIRATION OVER GREAT BRITAIN

SOIL MOISTURE DEFICIT AT 0900 GMT ON 21 JANUARY 1981

In the three weeks since the preparation of the previous bulletin (31 December 1980), weather has been mainly unsettled, although rainfall amounts have not been generally large in the south. Heavy precipitation (more than 15 mm) occurred on 1 and 2 January in northwest Scotland, the Southern Uplands, Lake District and Pennines, on 2nd and 3rd in Shetland and again on 5th in northwest Scotland. More than 25 mm was recorded quite widely on 13th in northwest Scotland as far south as Loch Lomond, and also in Southern Uplands, and more than 12 mm fell on the following day in these areas, in Pennines, over much of Wales and in southwest England where 30 mm was exceeded on the Moors. Further heavy precipitation occurred in many hilly western districts on 18th.

Snow or sleet fell on every day in the three weeks in parts of northern Scotland and, even in southern England, precipitation was wintry on many days. Snow cover did not last long in the south but quite deep snow occurred in Scotland with some drifting.

Soils are now everywhere at capacity for short-rooted vegetation. Deficits for areal land use are still quite substantial for the time of the year from the Vale of Belvoir to the Thames Estuary but are not unprecedented: values in several recent years have been higher. It seems likely that normal rainfall will bring soils to capacity by the end of the winter, but at one or two places eg. Cambridge and Shoeburyness, deficits under long-rooted vegetation may carry through the winter.

General deficits for areal land use are still well above average, by about 17 mm, over Lee and Essex Rivers.

The Bulletin for the present season will now be discontinued, but evapotranspiration data for 75 stations will still be published at monthly intervals as part of the service. It is proposed to continue the Bulletin for a further season, nominally from 1 March 1981, but issues may not recommence until sizeable deficits have built up in the spring. Extraordinary issues may be prepared in the remainder of the winter in the event of severe weather or deep, prolonged snow cover.

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ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.)
AT 09 GMT ON 21 JANUARY 1981

River Area	Areal Land Use	Change during the week ending 09 GMT on	
	Estimated S.M.D. mm	21 January 1981 mm	14 January 1981 mm
Northumbrian	0.3	- 0.8	+ 0.4
Yorkshire	1.6	- 1.5	+ 0.4
Trent	3.6	- 2.8	- 0.2
Lincolnshire	12.2	- 4.0	- 1.9
Welland and Nene	14.2	- 4.0	- 0.6
Great Ouse	12.7	- 3.8	- 2.2
Norfolk and Suffolk	6.8	- 2.7	- 4.4
Essex	27.1	- 3.2	- 3.5
Lee Division	22.5	- 4.4	- 3.8
Thames Conservancy	10.3	- 3.8	- 3.4
London Area	13.0	- 1.8	- 1.2
Kent	10.1	- 1.1	- 1.8
Sussex	0.0	0.0	- 1.4
Hampshire	5.2	- 2.5	- 1.0
Isle of Wight	4.7	- 5.4	- 3.4
Upper Thames	9.2	- 4.2	- 5.1
Avon and Dorset	5.5	- 2.6	- 1.6
Devon	0.0	- 0.8	+ 0.2
Cornwall	0.0	0.0	0.0
Somerset	2.2	- 2.3	- 0.5
Bristol Avon	5.1	- 3.9	- 1.4
Severn	1.6	- 2.1	- 1.7
Wye	0.0	- 1.4	- 0.2
Usk	0.0	0.0	0.0
Glamorgan	0.0	0.0	0.0
South West Wales	0.0	0.0	0.0
Gwynedd	0.0	0.0	0.0
Dee and Clywyd	0.0	0.0	0.0
Mersey and Weaver	0.0	0.0	0.0
Lancashire	0.0	0.0	0.0
Cumbria	0.0	0.0	0.0

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

