

METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT OVER GREAT BRITAIN

AT 0900 ON 10 JUNE 1981

Weather continued unsettled in the fortnight since the publication of the previous bulletin (27 May 1981). Showers were widespread on 27 May and in the afternoon of that day, a line of thunderstorms was apparent from Kent to Lewis. Heavy rainfall occurred in many of these storms, the most notable fall so far being one of 60 mm in a few hours at Abbotsinch, near Glasgow. More than 12 mm was recorded on 30 May at many places from Sussex to Cornwall and 31 May was about the wettest day of May in Scotland with more than 10 mm recorded quite widely from Orkney to the Firth of Forth. The most widespread heavy rainfall, however, occurred in the rainfall day 1 June (mostly in early hours of 2nd) when violent thunderstorms moved up from France. More than 10 mm was recorded widely over England, south of a line from Morecambe Bay to the Wash and over the whole of Wales. As happened so often in 1980, there was evidence of organised bands of much heavier rainfall, the most spectacular being in the apparently favoured path from the Sussex coast northwards. The heaviest rainfall noted so far is 63 mm at Worthing and there were small areas of more than 40 mm along the northward path: values exceeded 20 mm as far north as south Lincolnshire. The thundery rainfall continued moving northwards to give values of more than 12 mm quite widely over northern England and southern Scotland. A rather drier spell followed the heavy rainfall in southern Britain. Heavy rainfall (more than 15 mm) occurred in one part of Scotland or another on each of the days 7, 8, and 9 June: more than 30 mm was recorded over the Cairngorms and even lowland areas in extreme northeast Scotland on 9th.

With recent heavy rainfall, deficits have been reduced sharply over Scotland and soils in much of the west are back to capacity. The drier weather since 1 June has resulted in deficits at last beginning to build up in much of southeast and midland England but soils are still virtually at capacity over much of the southwest and Wales.

Although mean deficits for areal land use have increased sharply over most River Divisions of England in the most recent week they are still far below the average for 10 June and in most cases are still below the 1981 peak in mid-April. In some cases, notably Norfolk and Suffolk, Essex, Kent and Lancashire, mean areal deficits are the lowest for mid-June since areal comparisons began in 1963. In Scotland, mean deficits, for areal land use were above average in North East River Purification Board area but were below average over all other RPB areas.

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ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.) AT 09 GMT ON 10 JUN 1981

RIVER AREA	AREAL LAND USE ESTIMATED S.M.D. MM	CHANGE DURING THE WEEK ENDING 09 GMT ON	
		10 JUN 81 MM	3 JUN 81 MM
NORTHUMBRIAN	26.9	+ 5.4	- 2.5
YORKSHIRE	25.8	+10.8	- 1.8
TRENT	15.6	+11.1	- 0.5
LINCOLNSHIRE	24.8	+14.0	- 1.7
WELLAND AND NENE	16.4	+12.5	+ 0.3
GREAT OUSE	17.0	+11.6	+ 1.3
NORFOLK AND SUFFOLK	24.2	+12.9	+ 2.9
ESSEX	29.2	+15.2	+ 1.1
LEE DIVISION	18.3	+13.7	+ 0.4
THAMES CONSERVANCY	13.6	+11.1	+ 1.6
LONDON AREA	17.9	+13.1	+ 0.3
KENT	24.7	+14.1	- 1.8
SUSSEX	14.3	+10.6	- 1.4
HAMPSHIRE	11.5	+ 8.4	+ 0.4
ISLE OF WIGHT	14.6	+ 6.8	+ 5.2
UPPER THAMES	11.1	+ 9.1	+ 1.6
AVON AND DORSET	9.9	+ 7.0	+ 0.1
DEVON	7.0	+ 6.4	- 0.6
CORNWALL	4.3	+ 4.1	0.0
SOMERSET	8.9	+ 6.9	- 2.4
BRISTOL AVON	8.7	+ 6.3	- 0.9
SEVERN	10.3	+ 8.4	0.0
WYE	5.3	+ 4.5	- 0.9
USK	3.7	+ 3.1	- 1.1
GLAMORGAN	5.4	+ 4.9	- 1.2
SOUTH WEST WALES	5.3	+ 3.5	- 0.7
GWYNEDD	8.6	+ 1.7	- 1.6
DEE AND CLWYD	11.1	+ 3.8	- 2.3
MERSEY AND WEAVER	13.4	+ 8.3	- 3.0
LANCASHIRE	4.2	+ 2.9	- 4.4
CUMBRIA	2.3	- 5.0	- 7.4

N.B. APART FROM NORMAL CHANGES THESE DIFFERENCES ALSO REFLECT RETROSPECTIVE ADJUSTMENTS AFTER RECEIPT OF ADDITIONAL DATA.



ESTIMATED SOIL MOISTURE DEFICIT
AREAL LAND USE

0900 GMT 10 June 1981

Areas with no soil moisture deficit
are shaded. Remaining areas bounded
by 0, 12, 25 & 50mm ----- lines



