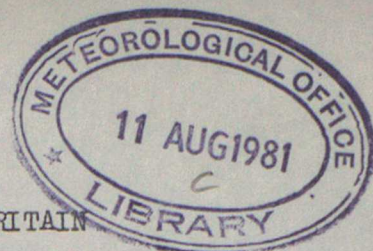


METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT OVER GREAT BRITAIN

AT 0900 ON 5 AUGUST 1981



On the day of preparation of the previous bulletin (22 July 1981), attention was drawn to heavy rainfall spreading eastwards: amounts on 22nd exceeded 15 mm widely in southern Scotland, northeast England, the Pennines, parts of southern England, including the southwest moors and particularly in an area to the west of London, extending from Heathrow to South Farnborough. Heavy rainfall continued on 23rd in East Anglia and on the North York Moors, where more than 60 mm was recorded. The remainder of the month was mainly dry, especially in Wales, midland, northern England and southern Scotland but amounts exceeded 25 mm widely in southern England on 31st. This rainfall brought to an end the 7 week mainly dry period from 11 June which many, but not all, places had experienced in southern central England. Heavy rain fell on 1 August in the extreme south of England but 1-4 August was dry in most places. More than 10 mm was recorded over much of southwest Scotland including the Ayrshire Plain and upper Clyde valley on 3rd.

Rainfall distribution for the fortnight showed some interesting regional patterns. Most of the country experienced less than average rainfall but the average was exceeded over an area extending from Wessex across southern central England to Essex and east Norfolk. Within this area almost twice the average was recorded in the Isle of Wight, on Salisbury Plain and to the west of London. Kent and Sussex remained comparatively dry. The average was also exceeded over much of Yorkshire and on the Northumbria coast: more than twice the average occurred on the North York Moors. Most of England and Wales west of a line from Exmouth to Humberside and also most of Scotland, except the southwest and the extreme north, recorded less than half the average. Less than 25 per cent of average occurred over most of Wales.

The maps show a rather flat distribution over most of England with values (on the areal land use map) up to or above average in most places. The severe thunderstorms which have affected many parts of the country in the 36 hours since 0900 on 5th will have materially changed this picture, however, and many areas, particularly in northwest England may now have soils at capacity. Mean deficits for areal land use at 0900 on 5th were above average over most River Divisions, quite substantially so over Yorkshire, Trent, Lincolnshire, Severn and the Welsh Divisions. They were still below average, however, over Kent, Sussex, Hampshire, Devon and Cumbria. In Scotland, mean deficits for River Purification Boards were well above average in Highland, North East and Tweed but were below average in Solway and Clyde.

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ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.) AT 09 GMT ON 5 AUG 1981

RIVER AREA	AREAL LAND USE ESTIMATED S.M.D. MM	CHANGE DURING THE WEEK ENDING 09 GMT ON	
		5 AUG 81 MM	29 JUL 81 MM
NORTHUMBRIAN	81.7	+ 15.7	- 1.1
YORKSHIRE	91.9	+ 15.5	- 1.8
TRENT	95.8	+ 13.7	+ 3.3
LINCOLNSHIRE	111.9	+ 9.9	+ 8.0
WELLAND AND NENE	104.9	+ 10.4	+ 5.2
GREAT OUSE	101.5	+ 10.7	+ 2.7
NORFOLK AND SUFFOLK	98.6	+ 14.8	- 5.8
ESSEX	102.5	+ 6.5	+ 2.1
LEE DIVISION	94.7	+ 4.7	+ 2.3
THAMES CONSERVANCY	91.8	+ 2.5	- 0.1
LONDON AREA	97.5	+ 4.9	- 1.7
KENT	84.9	+ 10.0	+ 3.4
SUSSEX	83.7	+ 5.9	+ 2.5
HAMPSHIRE	83.9	- 0.4	- 3.3
ISLE OF WIGHT	84.5	- 9.6	+ 3.6
UPPER THAMES	93.8	+ 4.0	+ 5.3
AVON AND DORSET	85.8	+ 0.3	+ 2.7
DEVON	71.5	+ 5.4	+ 5.7
CORNWALL	60.7	+ 4.4	+ 5.9
SOMERSET	84.2	+ 1.8	+ 4.9
BRISTOL AVON	91.0	+ 1.7	+ 4.2
SEVERN	92.8	+ 10.9	+ 6.0
WYE	89.9	+ 12.3	+ 7.1
USK	81.5	+ 11.8	+ 7.9
GLAMORGAN	77.5	+ 12.7	+ 9.3
SOUTH WEST WALES	81.1	+ 15.1	+ 13.9
GWYNEDD	61.2	+ 16.3	+ 7.1
DEE AND CLWYD	66.2	+ 17.7	+ 5.2
MERSEY AND WEAVER	74.9	+ 19.7	+ 4.8
LANCASHIRE	50.0	+ 18.8	+ 2.4
CUMBRIA	39.7	+ 17.1	+ 0.9

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

