Centre for Ecology & Hydrology
NATURAL ENVIRONMENT RESEARCH COUNCIL

Outlook based on Modelled Flow from Rainfall Forecasts 1- and 3-month variability

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The maps illustrating the regional river flows for five members of the Met Office ensemble of rainfall forecasts give some indication of the range of possible river flows in the coming months. As noted previously, the actual flows could be more extreme than the flows generated by either the lowest or highest members of the rainfall ensemble.

The tables below give further insight into the range of river flow forecasts by considering all members of the forecast rainfall ensemble. The numbers in the tables are the percentage of ensemble forecasts falling in each of the flow categories as generated by the monthly-resolution water-balance model. As before results are averaged by region then ranked in terms of 54 years of historical regional flow estimates (1963 – 2016).

SUMMARY: Following above average rainfall for June for many Northern and Western regions, it is likely that river flows for July will be in the N*ormal range* or above in these areas. Elsewhere, (e.g. South East and Severn regions), following below normal rainfall in June, river flows are likely to be in the N*ormal range* or below.
Over the next 3 months it is likely that that river flows will be in the *Normal range* or above for most regions, excepting Severn and South Eastern regions, where flows are most likely to be in the *Normal range* or below.

SCOTLAND
HR Highlands Region
NER North East Region
TR Tay Region
FR Forth Region
CR Clyde Region
TWR Tweed Region
SR Solway Region
ENGLAND
N Northumbria
NW North West
Y Yorkshire
ST Severn Trent
A Anglian
T Thames
S Southern
W Wessex
SW South West
WALES
WEL Welsh

NORTHERN IRELAND
This method cannot currently be used in Northern Ireland

1-month ahead	A	NW	N	ST	SW	S	T	Welsh	W	Y	CR	FR	HR	NER	SR	TR	TWR
Exceptionally high flow	7	5	7	2	2	2	2	5	2	5	17	7	17	7	19	5	7
Notably high flow	2	21	24	10	7	5	2	21	2	21	14	19	2	2	12	2	17
Above normal	17	12	26	14	48	17	10	10	21	26	19	45	17	10	29	29	38
Normal range	67	55	43	52	31	40	43	52	45	43	38	29	52	74	33	52	38
Below normal	7	2	0	14	12	36	38	10	29	5	12	0	5	7	7	12	0
Notably low flow	0	5	0	7	0	0	5	2	0	0	0	0	2	0	0	0	0
Exceptionally low flow	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0

3-months ahead	A	NW	N	ST	SW	S	T	Welsh	W	Y	CR	FR	HR	NER	SR	TR	TWR
Exceptionally high flow	0	0	2	0	0	0	0	0	0	0	7	7	12	2	0	0	0
Notably high flow	7	7	12	5	7	0	0	7	2	14	7	7	2	5	14	12	7
Above normal	26	17	36	17	14	7	7	17	12	10	45	43	21	14	38	12	17
Normal range	55	64	40	45	67	52	45	60	52	57	31	36	45	69	38	67	71
Below normal	10	5	10	26	7	21	36	10	24	17	7	7	14	7	7	7	5
Notably low flow	2	2	0	5	5	19	12	5	10	2	2	0	2	2	2	2	0
Exceptionally low flow	0	5	0	2	0	0	0	2	0	0	0	0	2	0	0	0	0

The Hydrological Outlook UK provides an outlook for the water situation for the UK over the next three months and beyond. For guidance on how to interpret the outlook, a wider range of information, and a full description of underpinning methods, please visit the website: www.hydoutuk.net