



Environment
Agency

monthly water situation report

South East Region

Summary – March 2013

Above average rainfall fell during March, although the last week was dry. Soil moisture deficits are close to average and key flow and groundwater sites remain *normal* or higher for the time of year. Some flood alerts were issued in the month and a small number of groundwater flood alerts remain in place.

Rainfall

The South East Region received 113% average rainfall for March, with the Lower Wey, Loddon and Chilterns West the wettest with over 150% of the long term average. There were two periods of widespread rainfall: on the 8th, there was heavy rainfall on the eastern half of the Region, with the highest daily total recorded at Willop TBR (Romney Marsh) of 32mm; and on the 15th there was rainfall across most of the Region with totals in excess of 20mm recorded in the Berkshire Downs and Test Chalk. There was very little rainfall after the 23rd of the month.

The Region has received 131% average rainfall during the winter period October 2012 to March 2013.

This is more than double the rainfall for the winter period ending March 2012 when only 64% average rainfall was recorded. The 12 month period ending in March 2013 is the 2nd wettest on record for South East Region, after 2001.

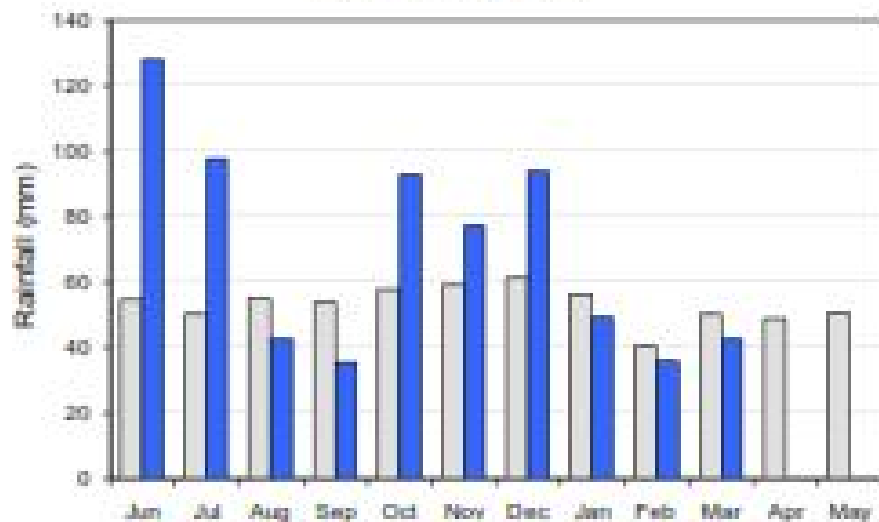
Soil Moisture Deficit, Recharge and Groundwater Levels

The soil moisture deficits were close to average at the end of March. There was above average recharge during the month, with an estimated 172% average for the winter from October 2012.

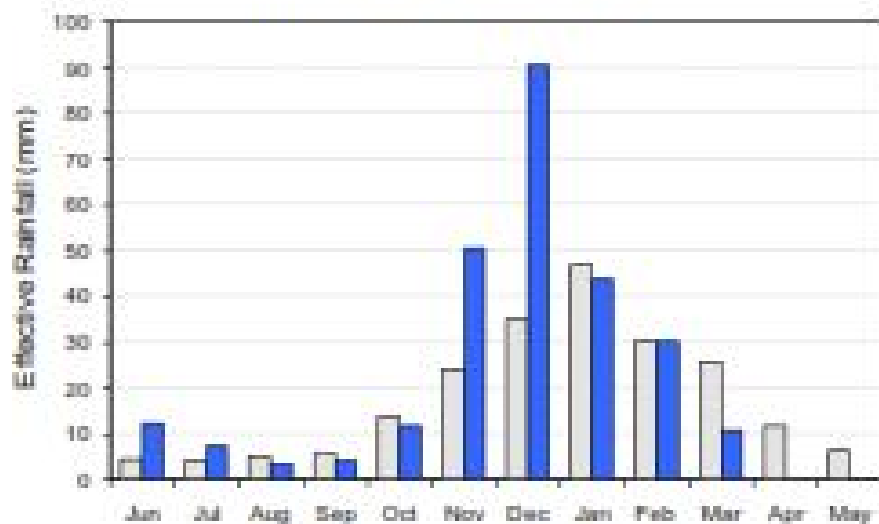
Groundwater levels remain high across the Region, although 10 of the 16 key sites now have falling levels. The sites where levels are still rising are Jackaments, where the Oolites respond quickly to rainfall; Stonor (Chilterns West) and Lilley Bottom (Lee Chalk), both of which have some delay in response to rainfall; Carisbrooke (Isle of Wight); and Sweeps Lane and Riddles Lane in the North Downs. Carisbrooke levels remain *exceptionally high*, while Ashley Green and Jackaments are now *normal* for the time of year. At the end of the month there were a number of groundwater flood alerts in force across the Region, many of which were issued last month; for more details see the latest groundwater briefing notes:

<http://www.environment-agency.gov.uk/homeandleisure/floods/137320.aspx>

Lee Chalk - Rainfall

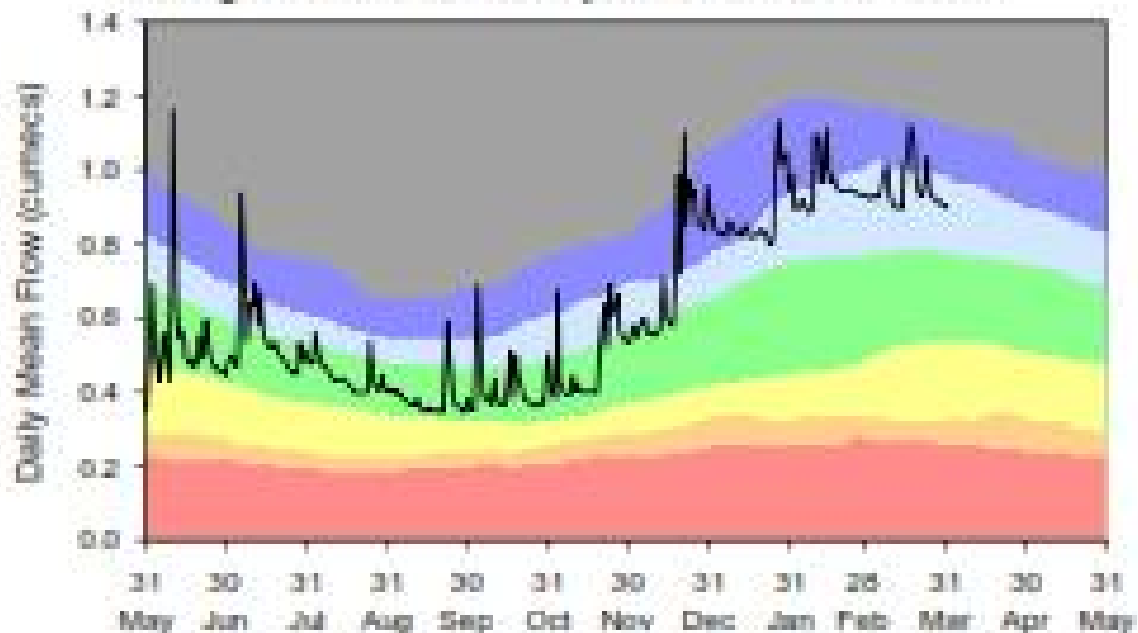


Lee Chalk - Effective Rainfall

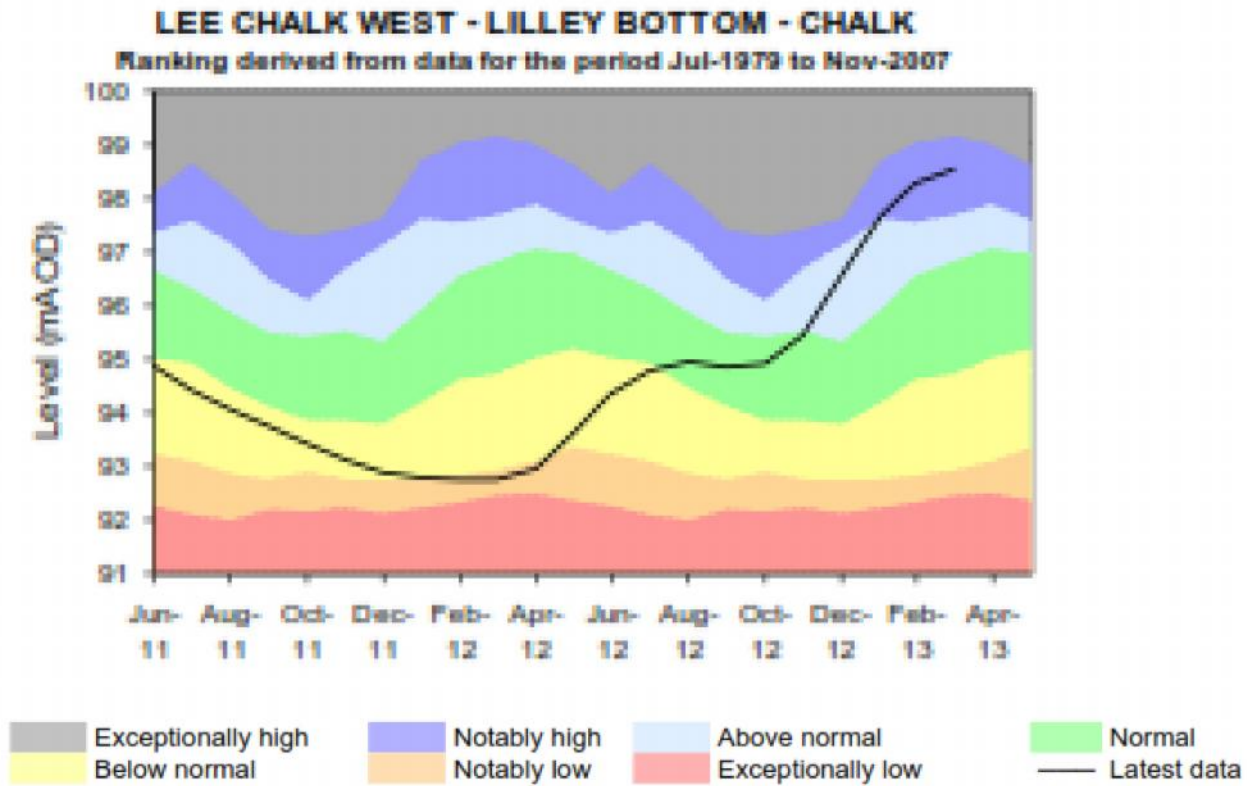


RIVER MIMRAM AT PANSHANGER

Ranking derived from data for the period 01/12/1952 to 31/12/2007



Upper Lee groundwater



Summary

Summary of March-2013 Rainfall, Effective Rainfall and Soil Moisture Deficit calculated up to the 31st of the month

Number	Name	Rainfall (mm)			Effective Rainfall (mm)			SMD (mm)		Winter period: 01/10/2012 to 31/03/2013					
		31 day Total	March LTA	% LTA	31 day total	March LTA	% LTA	Day 31	End Mar LTA	Rainfall (mm)			Effective Rainfall (mm)		
										Total	LTA	% LTA	Total	LTA	% LTA
0010TH	Cotswolds - West (A)	80	63	127%	50	36	139%	10	9	634	406	156%	557	291	192%
0070TH	Berkshire Downs (G)	96	64	149%	66	35	165%	10	9	539	406	133%	416	252	165%
0130TH	Chilterns - West (M)	96	50	167%	66	33	199%	11	9	526	369	143%	385	240	160%
0162TH	North Downs - Hampshire (P)	101	69	145%	72	47	151%	11	8	632	463	136%	517	366	141%
0190TH	Wey - Greensand (S)	78	67	117%	49	39	126%	11	10	561	436	127%	471	295	160%
West Thames Average		79	58	136%	49	32	151%	11	10	516	377	137%	461	236	170%
Thames Catchment Average		70	59	133%	40	33	147%	11	9	519	362	130%	402	242	166%
0140TH	Chilterns - East - Colne (N)	67	59	115%	37	34	107%	8	9	504	377	134%	355	236	149%
0500TH	Lee Chalk	43	50	85%	11	26	42%	8	10	391	326	120%	237	175	135%
0507TH	North London	62	51	121%	30	22	134%	11	12	416	330	126%	262	148	177%
0509TH	Roding	40	46	86%	9	21	42%	11	11	369	360	123%	229	139	164%
North East Thames Average		52	51	101%	19	25	77%	9	11	418	331	126%	268	173	155%
0230TH	North Downs - South London (W)	79	61	129%	51	34	151%	10	9	552	412	134%	427	259	165%
0708So	Darent	62	54	114%	31	22	139%	13	13	433	355	122%	296	145	197%
0707So	North Kent Chalk	67	57	119%	42	25	167%	13	11	436	376	115%	319	162	175%
0708So	Stour	34	57	60%	16	26	60%	20	10	473	396	119%	326	201	162%
0909So	Medway	72	61	119%	42	31	139%	11	8	509	417	122%	390	241	162%
Kent & South London Average		59	56	104%	31	25	124%	14	12	462	379	122%	323	191	169%
0701So	Test Chalk	66	70	126%	60	41	146%	11	9	611	449	136%	479	255	186%
0702So	East Hampshire Chalk	72	74	97%	41	45	91%	13	9	606	490	124%	507	301	166%
0703So	West Sussex Chalk	76	76	99%	45	46	97%	12	9	652	514	135%	595	336	177%
0804So	Anun	83	66	121%	51	39	133%	11	8	591	460	128%	466	291	167%
0805So	Adur	80	66	122%	50	36	139%	12	9	635	463	137%	532	267	195%
Solent & South Downs Average		72	69	104%	41	39	105%	12	9	634	475	133%	524	291	180%
South East Regional Average		68	60	113%	38	32	121%	12	10	526	402	131%	402	233	172%

This is a first estimate of areal rainfall, effective rainfall (i.e. percolation/runoff) and soil moisture deficit. There may be significant variation within each area which must be considered when interpreting these data. When additional meteorological data is available estimates are revised, this will affect period totals.