

To: Kent Flood Risk Management Committee – 16 July 2024
From: Rebecca Spore, Director of Infrastructure, Strategic and Corporate Services
Subject: Environment Agency and Met Office Alerts and Warnings and KCC severe weather response activity.
Classification: Unrestricted

Summary: To update Kent Flood Risk Management Committee on the current water situation, weather statistics, Environment Agency and Met Office Warnings, and flood response activity since the last meeting of the Committee on 14th March 2024.

1. Background

- 1.1 This report is the latest of the regular updates to the Committee addressing the current water situation and recent severe weather and associated emergency response activity in Kent.
- 1.2 The KCC Resilience and Emergency Planning Service Duty Emergency Planning Officer (DEPO) and Contact Point receive Environment Agency (EA) and Met Office alerts and warnings regarding severe weather on a 24/7 basis. Any site-specific severe weather impacts are notified to the DEPO by the emergency services and other resilience partners, with reports from the public received by Contact Point and passed on to the DEPO and/or Kent Highways. DEPO further initiates multiagency reporting using the County Council's innovative Severe Weather Impacts System (SWIMS) to capture resources and costs arising from severe weather incidents.
- 1.3 Some 85,500 residential and commercial addresses across Kent are located within areas identified as at risk from fluvial (river) or tidal (coastal) flooding. Where possible, flood vulnerable properties are offered a Flood Warning Service by the EA. Early warning of flood risk to communities (including areas outside of floodplains) is delivered through Flood Guidance Statements, Severe Weather Warnings and mobilisation of the Kent and Medway Resilience Forum (KMRF) Severe Weather Advisory Group (SWAG).

2. Kent water situation and weather statistics

- 2.1 A very wet and mild start to spring saw March 2024 record rainfall 170% above the long-term average for Kent, with temperatures +1.6°C average. This trend extended into April, which saw 149% of average rainfall and mean temperatures +0.9°C above average. May recorded 112% of the long-term rainfall average, with mean temperatures +1.3°C above average.
- 2.2 The UK as a whole had its warmest meteorological spring on record according to provisional Met Office figures.

- 2.3 June began with drier, cooler conditions, with 9% of long-term average rainfall recorded up to the 9th June. The 1991-2020 long-term rainfall average would expect a figure of 30% by 9th June. Temperatures were -1.6°C below average.
- 2.4 The latest river flow data available from the Environment Agency, covering March, ranged from exceptionally high to normal across the Kent and South London region. The highest flows were seen in the River Dour at Crabble Mill, which saw 205% of the long-term average, influenced by the high groundwater levels in the area.
- 2.5 Groundwater levels for the chalk and greensand aquifers across Kent ranged from exceptionally to notably high in April. However, the majority of groundwater sites are now showing a slight decrease in levels. The arrival of sunnier, warmer conditions and onset of vegetation growth will hasten this fall in groundwater levels, until the onset of the next recharge season in the autumn.
- 2.6 Both Bewl and Bough Beech reservoirs were at 100% capacity by the end of April.
- 2.7 28 flood alerts and two warnings were issued by the EA since the last meeting of the Committee (one groundwater, five fluvial and 24 coastal)¹. This contrasts with 20 flood alerts and warnings in the corresponding period in 2023 (19 fluvial and 1 coastal).
- 2.8 The Met Office issued 10 yellow weather warnings between March and May (five for rain and five for thunderstorm)². This compares with 18 yellow weather warnings for the same period last year (three for snow / snow and ice, two for ice, four for wind and nine for thunderstorm).
- 2.9 The Thames Barrier was closed on ten occasions since the last meeting (nine for operational purposes and one test)³. The figure for the corresponding period last year was four (two for operational and two for test purposes).
- 2.10 Met Office Kent statistics for March to June 2024 are set out in full at appendix 4 of this report⁴.

3. Recent Incident Response

- 3.1 Named storm Kathleen (6th – 7th April) resulted in some localised damage to trees, property and infrastructure. However, the key risk to the county was from tidal surge, with Thames Barrier closures enacted and flood alerts and warnings issued for the Kent coast and estuaries. EA and KCC duty personnel liaised effectively on appropriate measure throughout storm Kathleen and districts

¹ Please see appendix 1

² Please see appendix 2

³ Please see appendix 3

⁴ Please see appendix 4

were heavily involved in the clean-up. On 15th April a further Met Office severe weather warning was issued, with damage to trees, property and infrastructure.

4. Outlook

- 4.1 The Met Office three-month outlook summary indicates a 5% chance that June to August will be cooler than average (0.3 times the normal chance), a 50% chance that it will be near average (0.8 times the usual chance) and a 45% chance that it will be warmer than average (2.3 times the usual chance). In terms of rainfall, the summary indicates a 15% chance the season will be drier than average, 65% chance that it will be near average and a 20% chance it will be wetter than average. As regards likely wind speeds, the summary suggests a 10% chance that it will be calmer than average, a 60% chance that they will be near average and 30% chance of windier than average conditions.
- 4.2 The EA continuously runs surge forecasts, informed by astronomical tide calculations. If a risk of coastal flooding is forecast, then this information is communicated to partners. Forthcoming high tides will be 24th – 27th July, 20th – 24th August, 17th – 22nd September and 16th – 21st October. However, it is worthy of note that coastal flooding can occur outside of high tides.
- 4.3 Kent Flood Risk Management Committee will continue to receive regular updates on water resources, flood alerts, weather warnings and response going forward.

5. Recommendations

- 5.1 That Members note the warnings received since the last meeting of the Committee; and contribute to planning and response policy and practice through oversight and debate.

6. Contact Details

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Appendix 1: EA Flood Alerts and Warnings issued since 14th March 2024

No.	Date issued	Flood Zone	Status
1	04/04/2024	Nailbourne and Little Stour	Flood Alert
2	07/04/2024	Coast from St Margaret's at Cliffe to Sandgate	Flood Alert
3	07/04/2024	Coast from Ramsgate to Kingsdown	Flood Alert
4	07/04/2024	Coast from Whitstable to Margate	Flood Alert
5	07/04/2024	Isle of Sheppey and Coast from Kemsley to Seasalter	Flood Alert
6	07/04/2024	Coast from Dartford to Allhallows	Flood Alert
7	07/04/2024	Tidal Medway, Medway estuary and Isle of Grain	Flood Alert
8	07/04/2024	Tidal River Medway and Medway Estuary	Flood Warning
9	08/04/2024	Tidal Thames riverside from Dartford Creek and The Mardyke to the Thames Barrier	Flood Alert
10	08/04/2024	Lower River Medway Area	Flood Alert
11	08/04/2024	Tidal Stour Area from Fordwich to Stonar Cut	Flood Alert
12	08/04/2024	Coast from Sandgate to Dungeness	Flood Alert
13	08/04/2024	Coast from Fairlight to Dungeness including the Tidal Rother	Flood Alert
14	08/04/2024	Coast from St Margaret's at Cliffe, Dover, Folkestone and Sandgate	Flood Warning
15	08/04/2024	Coast from Ramsgate to Kingsdown	Flood Alert
16	08/04/2024	Coast from Whitstable to Margate	Flood Alert
17	08/04/2024	Isle of Sheppey and Coast from Kemsley to Seasalter	Flood Alert
18	08/04/2024	Tida Medway, Medway Estuary and Isle of Grain	Flood Alert
19	08/04/2024	Coast from Dartford to Allhallows	Flood Alert
20	08/04/2024	Tidal Thames riverside from Dartford Creek and The Mardyke to the Thames Barrier	Flood Alert
21	09/04/2024	Isle of Sheppey and Coast from Kemsley to Seasalter	Flood Alert
22	09/04/2024	Tidal Medway, Medway Estuary and Isle of Grain	Flood Alert
23	09/04/2024	Coast from Dartford to Allhallows	Flood Alert
24	09/04/2024	Coast from Whitstable to Margate	Flood Alert
25	09/04/2024	Coast from St. Margaret's at Cliffe to Sandgate	Flood Alert
26	09/04/2024	Coast from Ramsgate to Kingsdown	Flood Alert
27	11/04/2024	Coast from St. Margaret's at Cliffe to Sandgate	Flood Alert
28	11/04/2024	Coast from Ramsgate to Kingsdown	Flood Alert
29	19/04/2024	Groundwater Flooding in East Kent	Flood Alert
30	07/05/2024	Rivers Eden and Eden Brook Area	Flood Alert

Appendix 2: Met Office Severe Weather Warnings – 14th March to 14th June 2024

Weather Element	Number of Warnings	No of Different Events	Dates covered by Events
Wind	5	3	28 th March, 8 th – 9 th April and 15 th April
Thunderstorm	5	3	1 st – 2 nd May, 6 th May and 21 st May

Appendix 3: Environment Agency Thames Barrier closures since 14th March 2024

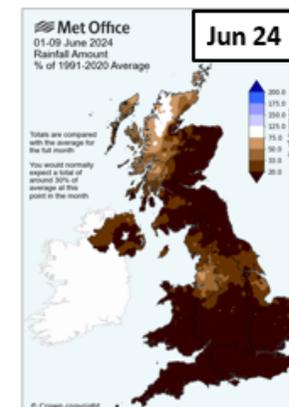
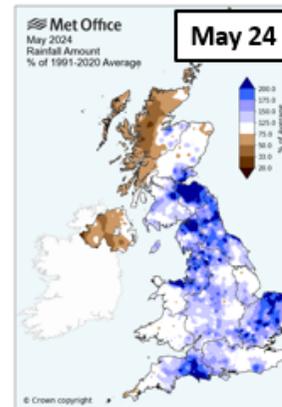
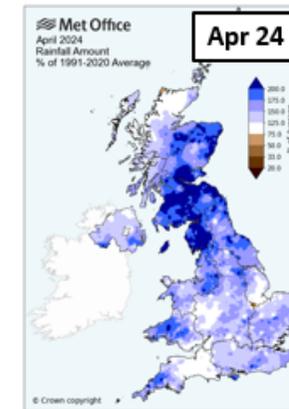
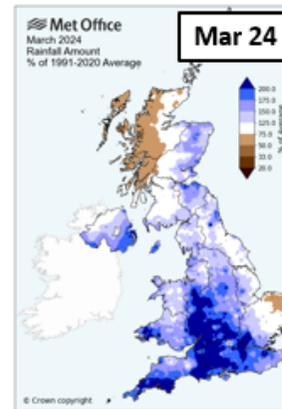
No.	Thames Barrier closure alerts	Date	Status
1	Thames Barrier closed	14/03/2024	Operational
2	Thames Barrier closed	07/04/2024	Operational
3	Thames Barrier closed	08/04/2024	Operational
4	Thames Barrier closed	08/04/2024	Operational
5	Thames Barrier closed	08/04/2024	Operational
6	Thames Barrier closed	08/04/2024	Operational
7	Thames Barrier closed	09/04/2024	Operational
8	Thames Barrier closed	09/04/2024	Operational
9	Thames Barrier closed	09/04/2024	Operational
10	Thames Barrier closed	10/06/2024	Test



Kent Statistics – March to June 2024

Month	Rain ¹	Mean Temp ¹
March	170%	+1.6 C
April	149%	+0.9 C
May	112%	+1.3 C
June (1-9)	9% ²	-1.6 C

- 1) Compared to 1991-2020 long Term Average
- 2) Would normally expect 30% by 9th



Warm May and spring for the UK

The UK had its warmest May and meteorological spring on record according to provisional Met Office figures in what was also a wet and dull season for many. (Met Office)

<https://www.metoffice.gov.uk/about-us/news-and-media/media-centre/weather-and-climate-news/2024/warm-may-and-spring-for-the-uk>

Kent Statistics – March to June 2023*

*up to 9th June

Impact Matrix location

Likelihood	High		0	0	0
	Medium		4	0	0
	Low			0	0
	Very Low			6	0
		Very Low	Low	Medium	High
Impact					

Weather Element	No of Warnings	No of Different Events	Dates of Events
Wind	5	3	28 Mar, 08-09 Apr & 15 Apr
Thunderstorm	5	3	01-02 May, 06 May & 21 May

3-month Outlook (June to August)

The latest 3-month outlook (June to August) was issued on the 27th May 2024 and can be found at: <https://www.metoffice.gov.uk/services/government/contingency-planners/index> (next issue: 01 July 24)

Temperature



Precipitation

Wind



- The chance of a hot summer is higher than normal but is similar to recent years
- This brings an increased likelihood of heatwaves and heat-related impacts
- The chances of a wet or dry summer are fairly balanced