

**KENT FLOOD RISK AND WATER MANAGEMENT
COMMITTEE**

Tuesday, 16th July, 2024

2.00 pm





AGENDA

KENT FLOOD RISK AND WATER MANAGEMENT COMMITTEE

Tuesday, 16th July, 2024, at 2.00 pm

Ask for: **Emily Kennedy**

Telephone **03000 418 381**

Membership (7)

Conservative (5): Mr A R Hills (Chairman), Mr D L Brazier, Mr D Crow-Brown, Mr P Cole and Mrs M McArthur

Labour (1): Ms M Dawkins

Green and Independent (1): Mr M A J Hood

UNRESTRICTED ITEMS

(During these items the meeting is likely to be open to the public)

1. Apologies
2. Declarations of Interest
3. Minutes of the meeting on 14 March 2024 (Pages 1 - 6)
4. Southern Water - Clean Rivers and Seas Taskforce - update on pilot schemes
5. Southern Gas Network- risk of flooding to gas network
6. Water Management Solutions for Romney Marsh Area (Pages 7 - 12)
7. Environment Agency and Met Office Alerts and Warnings and KCC severe weather response activity (Pages 13 - 22)

EXEMPT ITEMS

(At the time of preparing the agenda there were no exempt items. During any such items which may arise the meeting is likely NOT to be open to the public)

Benjamin Watts
General Counsel
03000 416814

Monday, 8 July 2024

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KENT COUNTY COUNCIL

KENT FLOOD RISK AND WATER MANAGEMENT COMMITTEE

MINUTES of a meeting of the Kent Flood Risk and Water Management Committee held in the Council Chamber, Sessions House, County Hall, Maidstone on Thursday, 14 March 2024.

PRESENT: Mr A R Hills (Chairman), Mr D L Brazier, Mr D Crow-Brown, Ms M Dawkins and Mrs M McArthur

ALSO PRESENT: Cllr Mrs J Blandford, Mr G Brooker, Mrs G Brown, Cllr P Garten and Mr D Goff.

IN ATTENDANCE: Mr M Tant (Flood and Water Manager), Mr T Harwood (Resilience and Emergency Planning Manager) and Mr M Dentten (Democratic Services Officer)

UNRESTRICTED ITEMS

45. Declarations of Interest
(Item 4)

No declarations were made.

46. Minutes of the meeting held on 14 November 2023
(Item 5)

RESOLVED that the minutes of the meeting held on 14 November 2023 were an accurate record and that they be signed by the Chairman.

47. Terms of Reference
(Item 6)

RESOLVED to note the Committee's updated Terms of Reference, as approved by County Council on 16 November 2023.

48. Southern Water - Clean Rivers and Seas Taskforce - Presentation
(Item 7)

Jon Yates (Pathfinder Delivery Lead) was in attendance for this item.

1. Mr Yates gave a presentation. The contents of his presentation included:

a. The Ofwat Accelerated Infrastructure Delivery Project;

- b. The Clean Rivers and Seas Taskforce Accelerated Plan, which included £9m of investment in Kent targeting five overflows, delivering 1 treatment works optimised, 2 pumping station optimisations, 8 surface water misconnection redirected, 2,000 household downpipes fitted with slow the flow measures and 10 roadside sustainable drainage schemes installed. It was stated that these measures would lead to a minimum 20% reduction in spills by April 2025;
 - c. Optimisation at the Swalecliffe Treatment Works, which had achieved a 20% reduction in long sea outfall events;
 - d. Centaur Gates and the development of a programme of works to make Whitstable the first Intelligent Catchment, utilising forecast rainfall, real time network information and AI to manage the infrastructure in a different efficient way to reduce CSO usage across the catchment and 37 pumping stations;
 - e. Completed surface water connection works in Whitstable and Deal;
 - f. Planned sustainable drainage system schemes in Whitstable, Deal and Margate;
 - g. Slow the Flow and installation of water butts and planters in Whitstable, with a future focus on targeting large industrial roof spaces;
 - h. Clean Rivers and Seas Regional Plan. It was confirmed that over 1,000 overflows would be investigated in the region between 2025-30 and that the Plan's budget had increased from £750m to £1bn;
 - i. Members were invited to use the interactive Clean Rivers and Seas Regional Plan map, which included details on when works were planned, how much had been invested and their expected impact at www.southernwater.co.uk/water-for-life/clean-rivers-and-seas-plan/map; and
 - j. Confirmation that a new Beachbuoy app would be released later in Spring 2024.
2. A Member commended Southern Water on its recent response during water outages in Thanet.
 3. Following a comment from a Member, Mr Yates stated that whilst Southern Water were not a statutory consultee on major planning applications, they were on local plans and worked hard with local planning authorities to be part of the conversation on planned development.
 4. A Member asked to what extent major residential developments contributed to greater levels of surface water flooding. Mr Yates stated that new major developments had not significantly worsened flooding and that smaller developments contributed to a larger extent as a result of surface water run off connections into foul. He confirmed that Southern Water had worked with designers and developers to ensure that sustainable drainage systems were

installed effectively. Mr Tant added that KCC had been a statutory consultee on surface water flooding for major developments since 2015 and that generally sustainable drainage systems had been used effectively and where there were legacy connections to the sewer, KCC had ensured that measures were in place to slow the flow rate or disconnect them. He noted that surface water flooding was more likely to be caused by older developments, particularly from the 1980s and 1990s, where SuDs were not used and connections to the sewer were common and where gardens had been paved and extensions added that increased the area the sewage infrastructure was initially designed for.

5. In response to a question from a Member, Mr Yates confirmed that the Beachbuoy system monitored the water quality of designated bathing areas only.
6. A Member asked whether Southern Water had met its storm overflow reduction targets and for assurance that their long plans were ambitious. Mr Yates confirmed that the two-year target to reduce storm overflows at Swalecliffe by 16% had been exceeded, with 23% achieved and that going forward a minimum 30% reduction was the target across the Whitstable catchment. He stated that it was the company's ambition that all targets be exceeded to accelerate the reduction of storm overflows.
7. Following a question from a Member on the impact of water butts and planters, as well as the work which could be done in Tonbridge to reduce surface water, Mr Yates explained that each catchment had its own characteristics which required bespoke solutions. He confirmed that exercises had been carried out to understand the Tonbridge catchment and that smart water butts and planters would play a part in future solutions to slow the flow in urban areas across the county.

RESOLVED to note the content of the presentation.

49. Environment Agency - Flood Wardens - Presentation
(Item 8)

Emma Crofts (Flood Resilience Engagement Advisor, Environment Agency) and Sacha Taylor (Communications and Engagement Officer, Kent Resilience Team, Kent Fire and Rescue Service) were in attendance for this item.

1. Mrs Crofts and Mrs Taylor gave a presentation. The contents of the presentation included:
 - a. Methods used for spreading flood awareness, including social media, local activities, direct community messaging, Flood Action Campaign and communication through partners;
 - b. Key messages, including checking local flood risk, signing up for warnings and alerts, making a flood plan, preparing your home and helping your community;

- c. An overview of Flood Warden and warning take up across Kent;
 - d. The role of Flood Wardens before a flood, in raising awareness, developing resilience and reporting;
 - e. Their role during, in helping to coordinate the community flood plan, share information and encourage residents to take action;
 - f. Their role after, in assisting with post-flood clear up, sharing messages and collecting post-flood data;
 - g. Training and promotion, including the delivery of training online and use of Communities Prepared and locally produced materials, equipment provided to new Wardens and the future evolution of the role;
 - h. Community resilience and flood plans and the distribution of the 29 plans in place across Kent;
 - i. The Kent Resilience Team's support of the Flood Warden programme, through promotion of flood warden recruitment and training events as well as engagement with KALC, parish councils, town councils and residents' associations;
 - j. Kent Prepared's Improving Community Resilience guide for parish and town councils available at: www.kentprepared.org.uk/improving-community-resilience; and
 - k. The Kent Resilience Forum community resilience working group's role in drawing together partners from the emergency services, Environment Agency, local authority emergency planning and community officers, KALC, parish and town councils to investigate collective efforts and further multi-agency approaches to community preparedness.
2. Following a question from a Member, on how local interest in flooding could be increased and maintained in areas without wardens which experienced surface water flooding, Mrs Crofts explained that it required increasing the understanding of local flood risk whilst also explaining how residents could have agency to organise a response to severe weather events. She agreed to provide interested Members with material for promoting the Flood Warden role in their divisions.
 3. Members commented that regular dialogue and community events were important ways of increasing Flood Warden retention.
 4. A Member commended the locality specific literature circulated in Tonbridge to raise awareness of flooding and emphasised the importance of community flood walks and audits for increasing the understanding of flood risk. They noted their support for expanding the Flood Warden role to include community resilience more broadly, with the support of the Kent Resilience Team.

5. The Chair emphasised the importance of enhancing the Flood Warden role by adopting new technologies such as an app reporting system to support local information sharing, preparation and resilience.

RESOLVED to note the content of the presentation.

50. The Wildlife Trusts - Coastal nature-based solutions to flooding - Presentation
(Item 9)

Ali Morse (Water Policy Manager, The Wildlife Trusts and Independent Member for Conservation, Southern Regional Flood and Coastal Committee) was in attendance for this item.

1. Mrs Morse gave a presentation. The contents of her presentation included:
 - a. An overview of Kent's coastal habitats, including the distribution of sea grass and salt marsh;
 - b. An explanation of nature-based solutions, as actions to protect, manage and restore natural or modified ecosystems to address societal challenges effectively and adaptively, with simultaneous benefit to people and the environment;
 - c. The goal of nature-based solutions to reduce coastal flood and erosion risks through promoting natural beach, wetland, reef, and dune processes;
 - d. Changing coastal erosion as well as tidal and fluvial flood risk in Kent;
 - e. Medway Estuary and Swale Flood and Coastal Risk Management Strategy, which sets out the best economic, environmental and technically appropriate approach to managing flood and coastal erosion risk over the next 100 years; and
 - f. The financial benefits of coastal wetlands in providing storm protection.
2. Following a question from a Member, Mrs Morse explained that shoreline management plans determined the intervention necessary for a section of coastline, using one of the following approaches: hold the line (maintain or upgrade protection from flooding or erosion by holding the shoreline in broadly the same position), no active intervention (maintain or encourage a more natural coastline, which may involve discussing adaptation to the risk from flooding or erosion), managed realignment (change the position of the shoreline in a controlled way, such as by slowing erosion or creating areas of habitat to help manage flooding) or advance the line (actively move shoreline defences significantly seawards).
3. Mrs Morse explained the positive impact sea grass and salt marsh had on carbon absorption as well as storm protection, following a question from a Member.

4. The importance of protecting existing sea grass as well as the creation of new sea grass beds was emphasised by Mrs Morse, in response to a question from a Member. Regarding suitable areas for new beds, she noted that good water quality was a key requirement.

RESOVLED to note the content of the presentation.

51. Environment Agency and Met Office Alerts and Warnings and KCC severe weather response activity
(Item 10)

1. Mr Harwood introduced the report which updated Members on water resources, weather statistics, Environment Agency and Met Office warnings, and flood response activity since the last meeting of the Committee. He provided the latest figures for alerts and warnings issued following the publication of the report, confirming that there had been 157 flood alerts (116 fluvial and 41 coastal) and the Thames Barrier had been closed 13 times for operational reasons. He noted that February had seen 242% of the long-term rainfall total falling in Kent and that temperatures had been 3.2°C above the 1990-2020 long-term average. Rising ground water levels and high river flows in East Kent were highlighted. Exercise Dryad, a multi-agency scenario carried out in the Folkestone and Hythe District in November was brought to the Committee's attention, the benefit to preparedness and agency rapid response was stressed.
2. Mr Harwood confirmed that Bewl Water had begun impounding water following a series of works and that owing to the significant rainfall in the period the shortfall had been accounted for.

RESOLVED to note the alerts and warnings received since the last meeting of the Committee.

From: Tony Hills, Deputy Cabinet Member for Environment

To: Kent Flood Risk and Water Management Committee – 16 July 2024

Subject: Water Management Solutions for Romney Marsh Area

Classification: Unrestricted

Past Pathway of Paper: N/A

Future Pathway of Paper : Southern Regional Flood and Coastal Committee

Summary: This report outlines the findings of a Water Management Working Group (see Appendix 1 for membership) looking at current flooding issues and future water management solutions for the Romney Marsh Area.

Recommendation: The Committee is asked to comment on the report as the basis for a lobbying document to the Southern Regional Flood and Coastal Committee for investment funding in Romney Marsh.

1. Introduction and Executive Summary

- 1.1 There are many water management challenges facing the Romney Marsh Area but there are also potential solutions.

The Challenges

- 1.2 The Environment Agency has identified Romney Marsh as having long-term risk from rivers, sea, surface and ground water
- 1.3 Much of Romney Marsh area is below the present-day high tide level, and without adequate sea defences, 14,500 homes, 700 businesses and nationally important, critical infrastructure are at risk of flooding¹.
- 1.4 The area is identified as “one of the largest in Southern England vulnerable to flooding from the sea with some parts having a 1 in 5 chance of flooding in any given year”². The main flood risk areas are shown here: [Managing Flood Risk Map.jpg \(950x610\) \(romneymarshhistory.co.uk\)](#)³
- 1.5 Climate change is happening at an increasing rate with the consequence of more extreme weather conditions and increased water volumes that need to be moved more quickly and effectively to prevent local surface water flooding is becoming the new normal. This requires new investment and the need to adapt traditional approaches to introduce new sustainable solutions to mitigate and manage climate change effects.

¹ [Lydd Ranges Sea Defences Scheme - Environment Agency - Citizen Space \(environment-agency.gov.uk\)](#)

² [Flood Risk on Romney Marsh - History of Romney Marsh \(romneymarshhistory.co.uk\)](#)

³ Source Environment Agency

- 1.6 Housing development is putting severe strain on and contributing to overloading of current systems and reduces open land available to deal with surface water drainage. Balancing the need for housing development to ensure that that new developments do not increase flood risk and, where possible, contribute to the reduction of flood risk to protect the safety and sustainability of communities is a key challenge.

The Potential solutions

- 1.7 All private and public sector agencies will need to work collaboratively to develop a comprehensive approach to water management systems supported by investment in new infrastructure to improve their effectiveness and efficiency. This would include:

- **Infrastructure investment** to strengthen and maintain existing assets and a robust replacement programme at end of life with new technologies.
- **Dynamic control of catchments** to prepare for storms as warnings improve. By moving water across the Marsh and pumped to sea (relies on accurate data adjusting for consecutive storm events).
- **Continuous Improvement of catchment knowledge** and on-going investment in identification of ownership and responsibilities of assets such as culverts and investigate whether these assets are being adequately maintained by the owners.
- Need for **comprehensive shared data sets** to ensure evidence-based joined-up decision-making.
- **Legislative changes** to require developers to include flood mitigations such as SUDs from new housing developments and stronger responses from the Environment Agency to housing developments.

2. Key Objectives of the Report

- 2.1 The key objectives for the Working Group were:
- To understand the particular water management issues within the Romney Marsh area and to review and consider water management solutions
 - To prepare a report outlining the current situation regarding surface water issues and potential solutions to present to the Southern Regional Flood and Coastal Committee to raise awareness to the challenge, also act as a bid for funding for future mitigations and interventions.

3. Current Water Management Systems and Challenges

- 3.1 Flood Defences are in place to protect against sea flooding using a combination of shingle beach and rock revetment. This needs to be maintained and updated as sea level rises.
- 3.2 This unique area has a range of nature reserves and biodiversity initiatives that contribute to flood mitigation including the Dungeness National Nature

Reserve, Special Area of Conservation, Romney Marsh and Rye Bay Special Protection Area, Rye Bay and Romney Marsh Ramsar Site and the oldest RSPB reserve in the country.

- 3.3 10% of watercourses in the area are maintained by the Environment Agency, Internal Drainage Board or, in a few urban areas, Folkestone & Hythe District Council, under their permissive powers. The remaining 90% are classified as Ordinary Watercourses and may receive occasional maintenance by their riparian (land) owners.
- 3.4 Traditionally, Catchment Management systems have aimed to sustain irrigation during the summer months while reducing water levels in the winter. However, the advent of rapid climate change and the resulting extreme weather patterns have surpassed the system’s capacity to respond.

4. Potential Solutions

- 4.1 The following table outlines a range of potential options that can be further developed into costed solutions.

Table: High-level draft options

Options	Description	Likely cost	Pros	Cons
Do nothing	Continue current regime	Low	Low cost no change	Does not reduce flood risk
Enhanced maintenance	Increased maintenance activities beyond standard level	Low/Medium	Reduced flood risk	Potential impact on wildlife
Increased conventional engineering approaches	More pumping stations	High	Significantly reduced flood risk	Energy/carbon intensive. Ongoing maintenance.
Eco-friendly green engineering solutions	Wind/solar powered pumping / SUDs	High	Significantly reduced flood risk. Low energy/carbon impact	Relatively untested
Catchment water management	Managing water quantity in a defined area	Medium – high	More sustainable	Potential impact on farming

5. Conclusions

- 5.1 With the predicted increase in sea level rise the Romney Marsh coastal defences will need to be maintained and updated.
- 5.2 The forecast increase in the level of rainfall requires more investment to enhance existing maintenance regimes to give more capacity within the historic dyke system.
- 5.3 Upgrading the existing pumping systems to generate more water movement and facilitate the quicker dispersal of excess water will need to be considered.

6. Next Steps for Group

- 6.1 The Working Group agreed to continue to meet to foster communication and collaboration, addressing issues, sharing challenges and delivering key messages aligned to winter review planning and a meeting post winter to review lessons learnt.

7. Recommendation

- 7.1 The Committee is asked to comment on the report as the basis for a lobbying document to the Southern Regional Flood and Coastal Committee for investment funding in Romney Marsh.

8. Contact Details

Report Author Theresa Warford Staff Officer to Growth, Environment and Transport Corporate Director 03000 417192 theresa.warford:kent.gov.uk	Relevant Director Matthew Smyth Director Environment and Circular Economy 03000 416676 matthew.smyth@kent.gov.uk
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Appendix 1: Working Group Representatives

Tony Hills, KCC Deputy Cabinet Member for Environment – Chair

Jennie Hawkins, KCC Member for Hythe West

Seb Bishop, Environment Agency, Operations Manager, Marsh

Nick Botting, Romney Marsh Area Internal Drainage Board, Engineer

Dr Nick Mills, Southern Water, Director of Environment and Innovation

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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

Report Author: Tony Harwood (Resilience and Emergency Planning Manager), Infrastructure, Deputy Chief Executive's Department, tel. 03000 413 386, e-mail tony.harwood@kent.gov.uk

Relevant Director: Rebecca Spore (Director of Infrastructure), Deputy Chief Executive's Department tel. 03000 412 064, email rebecca.spore@kent.gov.uk

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

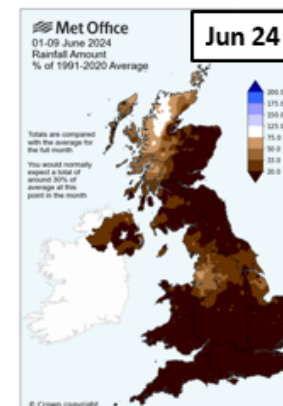
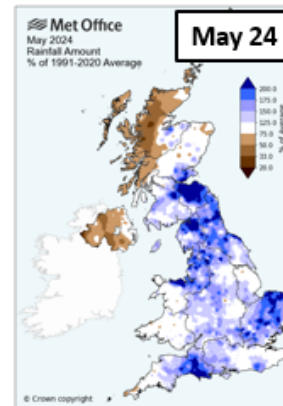
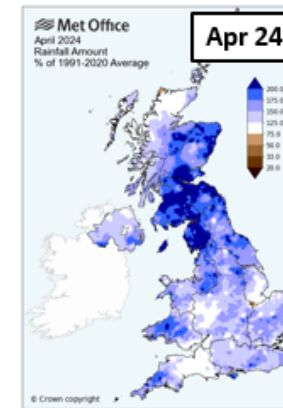
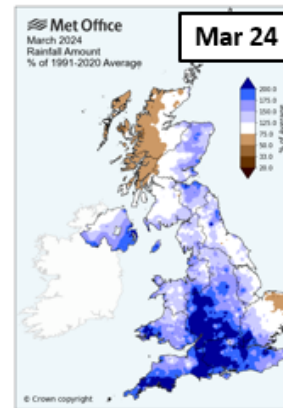
No.	Thames Barrier closure alerts	Date	Status
1	Thames Barrier closed	14/03/2024	Operational
2	Thames Barrier closed	07/04/2024	Operational
3	Thames Barrier closed	08/04/2024	Operational
4	Thames Barrier closed	08/04/2024	Operational
5	Thames Barrier closed	08/04/2024	Operational
6	Thames Barrier closed	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

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