

**To:** Kent Flood Risk & Water Management Committee – 5<sup>th</sup> February 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

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**Summary:** To update the Kent Flood Risk & Water 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 20<sup>th</sup> November 2024.

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## 1. Background

- 1.1 This report is the latest of the regular updates to the Committee regarding the current water situation in Kent, and recent severe weather incident response activity in Kent.
- 1.2 The KCC Duty Emergency Planning Officer (DEPO), KCC Highways Senior Duty Officer, and the Contact Point receive Environment Agency (EA) and Met Office alerts and warnings regarding severe weather on a 24/7 basis. Site-specific impacts are notified to the DEPO by the emergency services and other partners, with reports from the public received by Contact Point. KCC also use the Severe Weather Impacts System (SWIMS) to capture multi-agency resources and costs arising from severe weather incidents.
- 1.3 Across the county, 85,500 residential and commercial addresses in areas at risk from fluvial (river) or coastal flooding. Where possible, flood vulnerable properties are offered a Flood Warning Service by the EA. An early warning of flood risk to communities (including areas outside of floodplains) is provided by Flood Guidance Statements, Weather Warnings and the activation of a multi-agency Severe Weather Advisory Group (SWAG).

## 2. Kent water situation and weather statistics

- 2.1 Groundwater levels in the Kent & South London (KSL) area are rising, as is typical for this time of year, but are normal or above normal:
  - The KSL area received 78% of the long-term average (LTA) rainfall in December.
  - Rainfall was below normal in catchments in the Northwest and one in the East: the rest of experienced normal rainfall.
  - At the end of December, most catchments had Soil Moisture Deficits (SMDs) of 10mm or less, except for three in the northeast of KSL.
  - In December, monthly mean flows (MMFs) were mostly normal, with two flow sites in the northeast exceeding normal levels.

- 2.2 On 8<sup>th</sup> December 2024, the Charing Pumping Station rain gauge in the Stour catchment recorded the highest daily rainfall of 25.9mm. The highest daily rainfall totals were recorded on 4<sup>th</sup> / 5<sup>th</sup> / 9<sup>th</sup> / 18<sup>th</sup> December, ranging from 13.8 - 21.3 mm. Dry days with less than 1mm of rainfall occurred in the middle and end of the month.
- 2.3 Normal MMFs were seen at eight of the eleven major flow sites. Above-normal MMFs were seen at two flow sites in the northwest, including the River Darent at Hawley. For the month of December, Dour at Crabble had the highest MMF highest percentage LTA, 127%.
- 2.4 By the end of December, chalk groundwater levels are either average or above typical for this time of year. In certain places, the increase in groundwater is in line with 96% of the LTA's effective rainfall. It is also consistent with the continued depletion of Soil moisture deficits seen in most areas by the end of December
- 2.5 Bewl had normal reservoir levels at 79% and 63% and Bough Beech had above-normal levels at 92%.
- 2.6 The Met Office issued 20 weather warnings (including updates), all of which were Yellow Warnings: of these 9 were Low Impact, 11 Medium Impact, 0 High Impact over October to December,
- 2.7 Met Office statistics for Kent's weather warning for October to December 2024 are set out in full at appendix 4 of this report.

### 3. Recent Incident Response

- 3.1 For all weather warnings, the DEPO monitored the situation, and no action was required other than liaising with the Environment Agency and KCC Highways. Regarding flood alerts, the DEPO again liaises with the EA and KCC Highways.
- 3.2 An update on the response to Storm Éowyn will be given at the next Committee meeting.

Alert Register		
Date	Received from	Incident
07/10/2024	Met Office	Severe weather - yellow
08/10/2024	Met Office	Severe weather - yellow
08/10/2024	Met Office	Severe weather - yellow
10/10/2024	Environment Agency	Pollution - Oil / other
11/10/2024	KCC Waste	Request for resources
14/10/2024	Environment Agency	Flood impacts
15/10/2024	KFRS	Fire and fire related
16/10/2024	Kent Police	Outages- Gas
23/10/2024	KFRS	Fire and fire related
18/11/2024	KCC	Weather alerts - Cold
19/11/2024	Met Office	Weather alerts - Cold
21/11/2024	Canterbury City Council	Fire and fire related
22/11/2024	Met Office	Severe weather - yellow
26/11/1024	Environment Agency	Flood impacts
02/12/2024	Dover District Council	Outages - ICT cyber attack
03/12/2024	Kent Fire & Rescue	Fire and fire related
03/12/2024	Kent Fire & Rescue	Fire and fire related
04/12/2024	Canterbury City Council	Fire and fire related
04/12/2024	Met Office	Severe weather - yellow
07/12/2024	Met Office	Severe weather - yellow
09/12/2024	Environment Agency	Flood impacts
15/12/2024	Environment Agency	Pollution - Oil / other
16/12/2024	National Highways	Traffic - Jams, RTCs etc.
19/12/2024	Met Office	Severe weather - yellow
27/12/2024	KFRS	Fire and fire related
20/12/2024	Met Office	Weather alerts - Cold
30/12/2024	Met Office	Severe weather - yellow

## 4. Outlook

4.1 The Met Office three-month outlook summary indicates:

- a 5% chance that that the season will be cooler than average (0.3 lower than the normal chance),
- a 40% chance that it will be near average (0.7 times the usual chance)
- a 55% chance that it will be milder than average (2.8 times the usual chance).

In terms of rainfall, the summary indicates:

- a 15% chance the season will be drier than average,
- 55% chance that it will be near average
- a 30% chance it will be wetter than average.

For wind speeds, the summary suggests:

- a 10% chance that it will be calmer than average,
- a 55% chance that they will be near average
- a 35% chance of windier than average conditions

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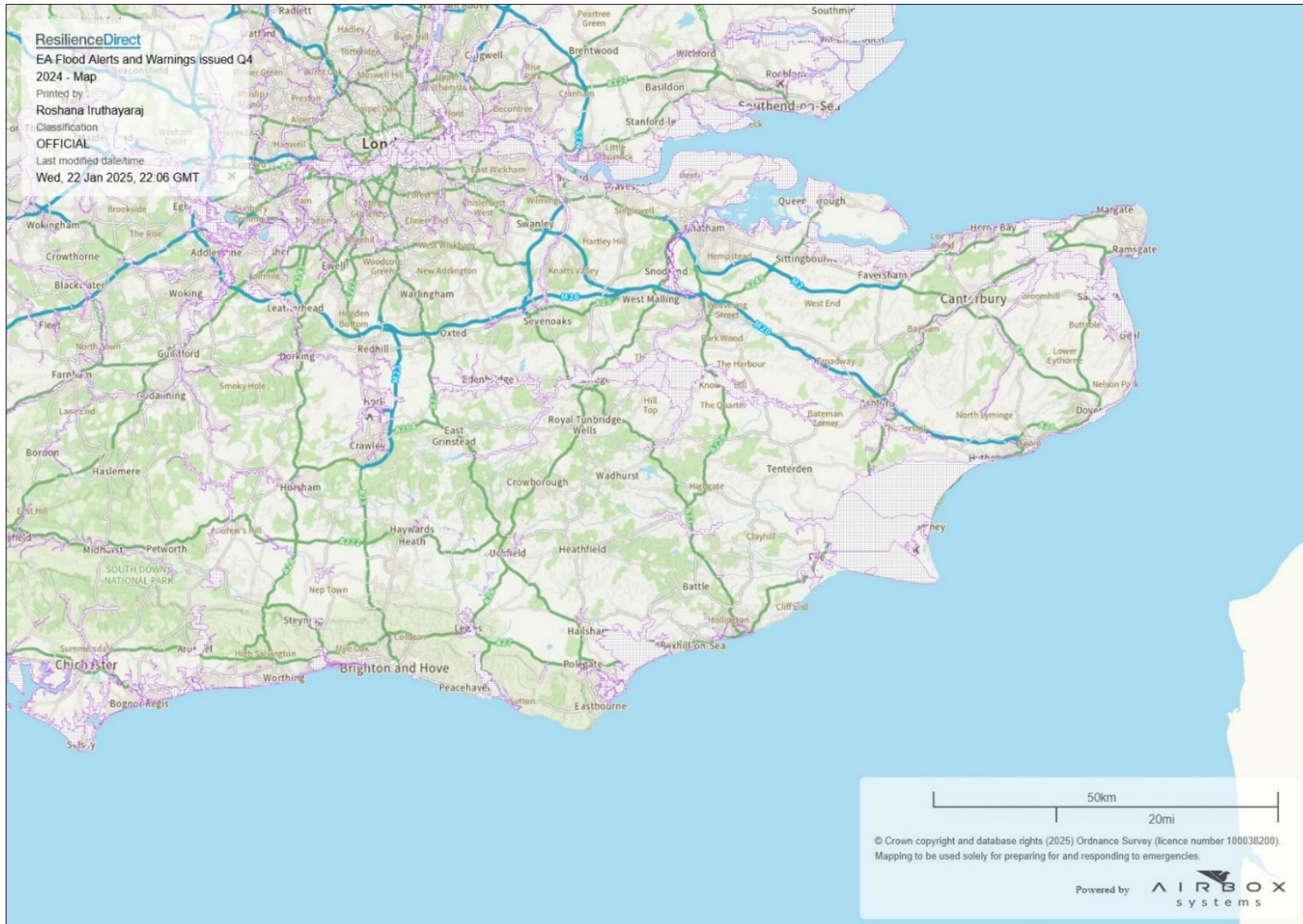
**Relevant Director:** Rebecca Spore (Director of Infrastructure), Deputy Chief Executive's Department tel. 03000 412 064, email [rebecca.spore@kent.gov.uk](mailto:rebecca.spore@kent.gov.uk)

## Appendix 1.: EA - Flood risk zones - visual map display

Live update of this image on Resilience Direct, image screen shot taken for this report on 23rd January 2025.

The purple on the map shows the areas that are at risk of flooding.

Source -  
Resilience Direct



## Appendix 2 : EA Flood Alerts and Warnings issued since 1<sup>st</sup> October 2024 to 31<sup>st</sup> December

Date	Warning area	Type
07/10/2024	Shuttle and Cray	Flood Alert
08/10/2024	Rivers on the Isle of Sheppey	Flood Alert
09/10/2024	River Teise area from Lamberhurst to Goudhurst	Flood Alert
09/10/2024	Rivers Eden and Eden Brook	Flood Alert
09/10/2024	Upper River Medway	Flood Alert
09/10/2024	River Rother and its tributaries from Turks Bridge to the Royal Military Canal	Flood Alert
09/10/2024	Upper River Stour	Flood Alert
09/10/2024	River Bourne from Hadlow to East Peckham	Flood Alert
09/10/2024	River Teise and Lesser Teise area from Horsmonden to Yalding	Flood Alert
14/10/2024	River Bourne from Hadlow to East Peckham	Flood Alert
14/10/2024	Rivers Eden and Eden Brook	Flood Alert
17/10/2024	Upper River Stour	Flood Alert
17/10/2024	Coast from Ramsgate to Kingsdown	Flood Alert
17/10/2024	Coast from Sandgate to Dungeness	Flood Alert
17/10/2024	Coast from St Margaret's at Cliffe to Sandgate	Flood Alert
17/10/2024	Coast from Fairlight to Dungeness including the Tidal Rother	Flood Alert
19/10/2024	Isle of Sheppey and coast from Kemsley to Seasalter	Flood Alert
16/11/2024	Coast from to Sandgate	Flood Alert
16/11/2024	Coast from Ramsgate to Kingsdown	Flood Alert
16/11/2024	Isle of Sheppey and coast from Kemsley to Seasalter	Flood Alert
16/11/2024	Coast from Whitstable to Margate	Flood Alert
16/11/2024	Tidal Medway, Medway estuary and Isle of Grain	Flood Alert
16/11/2024	Coast from Dartford to Allhallows	Flood Alert
25/11/2024	Rivers Eden and Eden Brook	Flood Alert
26/11/2024	Rivers Eden and Eden Brook	Flood Alert
26/11/2024	Upper River Medway	Flood Alert
26/11/2024	River Teise area from Lamberhurst to Goudhurst	Flood Alert
26/11/2024	River Bourne from Hadlow to East Peckham	Flood Alert
26/11/2024	River Rother and its tributaries from Turks Bridge to the Royal Military Canal	Flood Alert
26/11/2024	Upper River Stour	Flood Alert
26/11/2024	Plenty, Swalecliffe and West Brooks	Flood Alert
27/11/2024	River Darent from Westerham to Dartford	Flood Alert

27/11/2024	Lower River Medway	Flood Alert
27/11/2024	River Beult from Pluckley and Bethersden to Stilebridge	Flood Alert
27/11/2024	Middle River Medway	Flood Alert
05/12/2024	Upper River Medway	Flood Alert
05/12/2024	River Rother and its tributaries from Turks Bridge to the Royal Military Canal	Flood Alert
09/12/2024	River Beult from Pluckley and Bethersden to Stilebridge	Flood Alert
09/12/2024	Upper River Stour	Flood Alert
10/12/2024	Lower River Medway	Flood Alert
19/12/2024	Isle of Sheppey and coast from Kemsley to Seasalter	Flood Alert
19/12/2024	Coast from Whitstable to Margate	Flood Alert
19/12/2024	Tidal Medway, Medway estuary and Isle of Grain	Flood Alert
19/12/2024	Coast from Dartford to Allhallows	Flood Alert

Source – Environment Agency

### Appendix 2.1: EA Flood Alerts and Warning Table

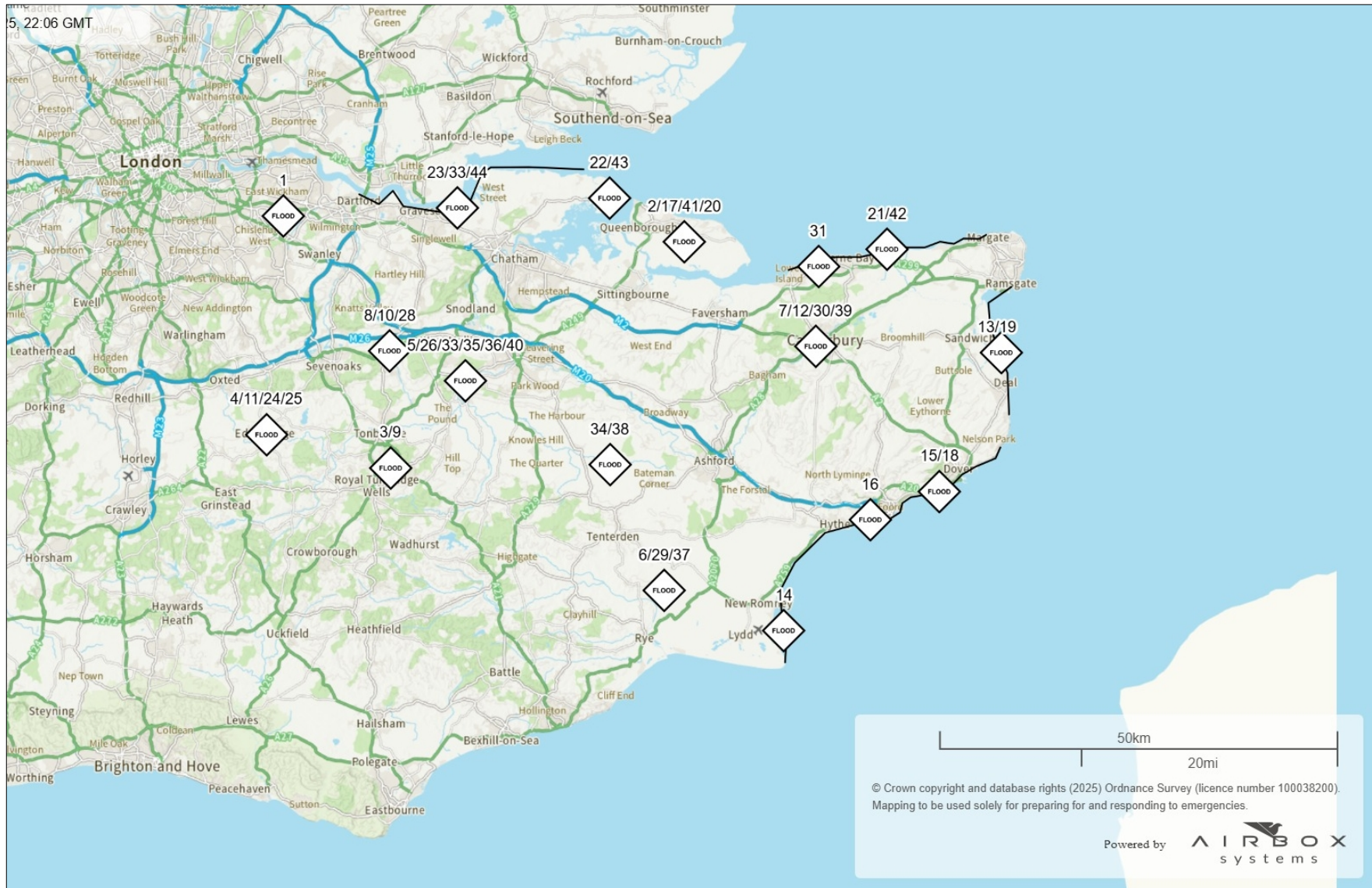
- Comparing 2024 April – June/July - September /October - December

EA Flood Alerts and Warnings issued							
Time Period	Coastal alerts	Coastal warning	Total Coastal	River Alerts	River Warnings	River Total	Overall Total
2024 <i>April – June</i>	16	1	17	12	1	28	2
2024 <i>July - September</i>	4	-	4	24	3	28	3
2023 <i>October - December</i>	27	-		17	-	17	44

Source – Environment Agency

## Appendix 2.2 EA Flood Alerts and Warnings visual map display

- Issued since 1<sup>st</sup> of October 2024 – 31<sup>st</sup> December 2024

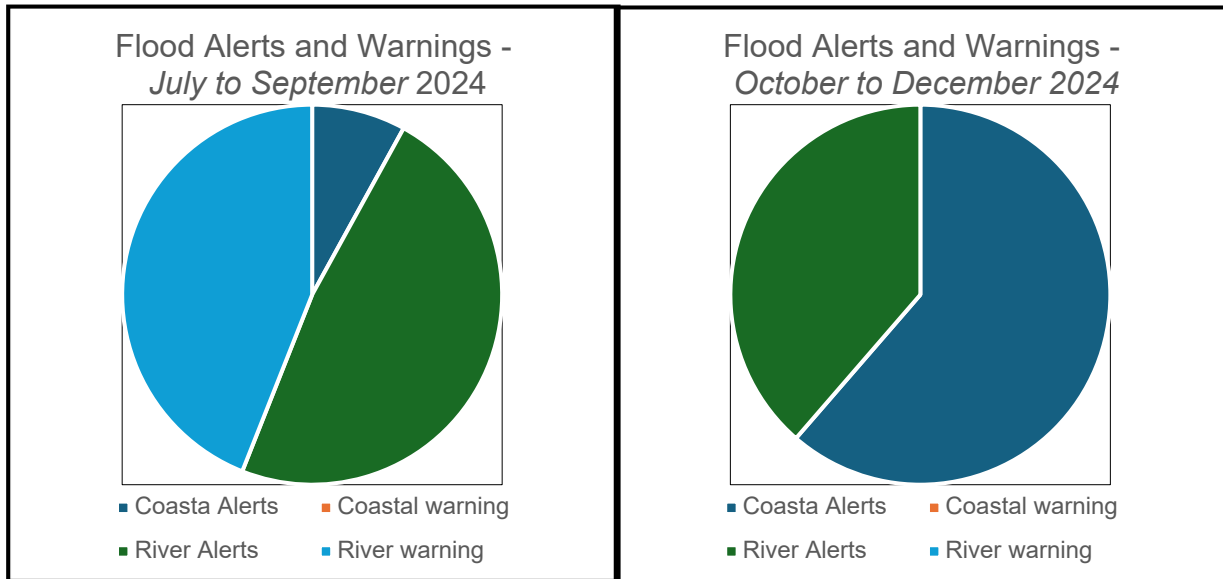


Source -Data from Environment Agency Formed into visual map on Resilience Direct



**Appendix 2.3: EA Flood Alerts and Warning pie chart**

- Comparing July to September 2024 and October to December 2024



Source – Environment Agency – Data from EA formed into visual Pie chart.

**Appendix 3: Thames Barrier closures**

Date of operational closures (2024 October- December)

- N/A

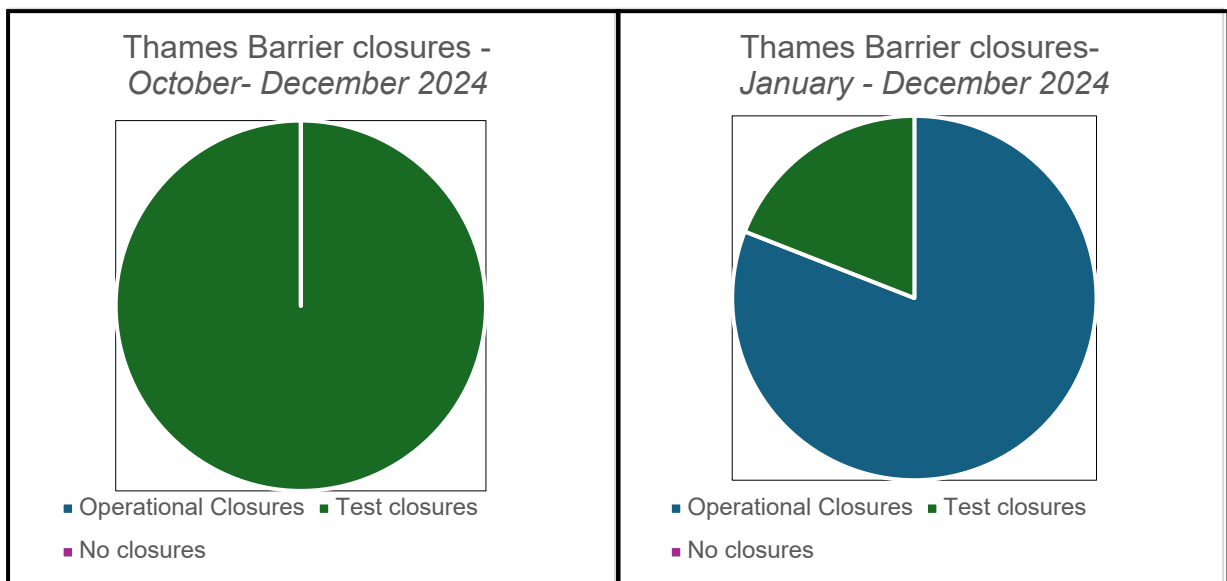
Date of test closures (2024 October- December) –

- (Closure 682) - 7<sup>th</sup> November 2024
- (Closure 683) - 19<sup>th</sup> December 2024

	2024 <i>October- December</i>	2024 <i>January - December</i>	2023 <i>January - December</i>
Operational closures	-	17	6
Test closures	2	6	10

Source – Environment Agency

**Appendix 3.1: Thames Barrier operational and test closures in visual pie chart**



Source – Environment Agency – Data from EA formed into visual Pie chart.

**Appendix 4: Met Office weather warnings – October to December**

Weather	Number of Warnings	No of Events	Dates covered by Events
Thunderstorm	3	2	October: 7, 8-9
Rain	3	1	November: 26-27
Fog	1	1	October: 18
Ice	1	1	November: 19-20
Wind	11	5	November: 23-24, 24 December: 6-8, 8, January: 1-2 (issued 29-31 Dec)
Wind & Rain	1	1	December: 6-8

Source – Environment Agency

**Appendix 5: Met Office Statistics – October to December 2024**

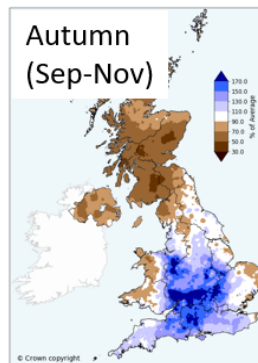
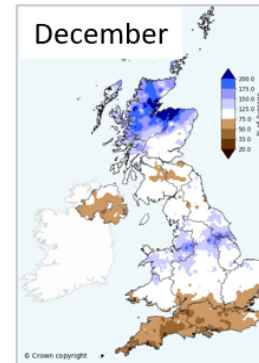
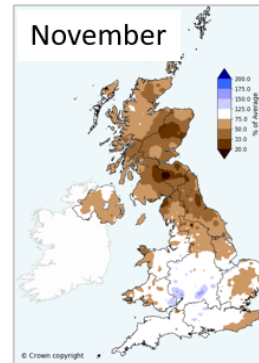
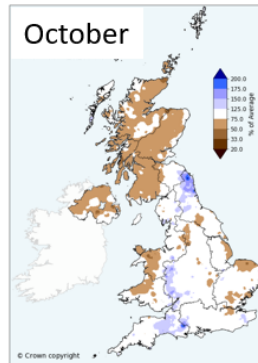
Source – Environment Agency



# Kent Statistics – October to December 2024

Month	Rain	Mean Max Temp
October	104%	+0.6 C
November	74%	-0.1 C
December	67%	+0.9 C
Autumn (Sep-Nov)	68%	+0.1 C

Compared to 1991-2020 long Term Average



The Autumn looks wet, but this is mainly due to a very wet September (192% of the long-term average) with October near average and November being dry.



# 3-month Outlook – January to March

<https://www.metoffice.gov.uk/services/government/contingency-planners/index>

## Temperature



## Precipitation



## Wind



## Summary

- Stormy conditions, and impacts from high winds, are more likely than normal.
- Higher than normal chance of this period being wet.
- The period is unlikely to be cold overall.
- However, shorter-lived cold spells remain possible.