

To: Kent Flood Risk Management Committee – 11th March 2019

From: Stephanie Holt-Castle, Interim Director of Environment, Planning and Enforcement

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 water resources situation, Environment Agency and Met Office Warnings, and flood response activity since the last meeting of the Committee on 12th November 2018.

1. Background

1.1 KCC Resilience and Emergency Planning Service Duty Emergency Planning Officer (DEPO) and Contact Point receive Environment Agency and Met Office alerts and warnings on a 24/7 basis. 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 to the DEPO and/or Kent Highways as appropriate.

1.2 Some 85,500 properties across Kent are located within areas identified as at risk from fluvial (river) or tidal flooding. Where possible, these properties are offered a Flood Warning Service by the Environment Agency. However, other parts of the County are also potentially vulnerable to surface and ground water flooding. Early warning of flood risk to communities (including areas outside floodplains) is delivered through Flood Guidance Statements, Severe Weather Warnings and mobilisation of Severe Weather Advisory Group (SWAG).

2. Latest situation

2.1 Kent received 153% of long-term average rainfall in November, 110% in December, 44% in January and 75% in February. All river catchments in Kent are currently at 'below normal' to 'notably low' ranges.

2.2 Soil moisture deficits developed in early January, before falling back to near zero by the end of the month as they responded positively rainfall events, except in north west Kent where a deficit persisted.

2.3 Consecutive dry weeks in January slowed groundwater recharge considerably from the rates observed in November and December. In the North Downs chalk aquifer groundwater levels reached the bottom of their normal range at the end of January. Detailed data was not available for February at the time this report was completed, but dry and warm conditions experienced in the latter part of the month are likely to have negatively impacted groundwater recharge.

2.3 Reservoir levels were boosted by the wet November and December and all remain within their normal ranges for the time of year.

2.5 25 flood alerts were issued by the Environment Agency since the last meeting in November (15 fluvial and 10 coastal)¹. This contrasts with 35 flood alerts (12 fluvial and 23 coastal) in the corresponding period last year.

2.6 15 Met Office severe weather warnings were issued (1 for wind, 1 for ice and fog, 5 for fog, 4 for ice and 4 for snow and ice)². This compares with 11 for the same period last year (5 for ice, 1 for snow and ice, 1 for snow, 1 for rain and 3 for wind).

2.7 The Thames Barrier was closed on 4 occasions since the last meeting (3 for test and 1 for operational purposes)³. The figure for the corresponding period last year was 7 (2 for test and 5 for operational purposes).

2.8 A small number of severe weather incidents were reported to DEPO since the last meeting. Notably including wintery weather in northern France, which led to disruption to cross Channel transport on 23rd January, and sheet ice affecting the A249 between Sittingbourne and Maidstone on 1st February.

2.9 SWAG teleconferences took place on 22nd and 23rd January, ahead of snow and ice forecast for east Kent, and on 2nd February following localised but severe winter weather impacts - including a collapse of many trees onto the highway at Walderslade. All SWAGs were chaired by KCC, as the main risk related to transport.

3. Looking forward

3.1 The Met Office forecast for the next 3 months indicates a continuation of the prevailing warmer than average trend but does not provide a strong signal for either wetter or drier than average conditions. The evolving groundwater situation will continue to be closely monitored and will inform multi-agency drought planning.

3.2 The Environment Agency continuously runs surge forecasts, informed by astronomical tide calculations. If a risk of coastal flooding is forecast this information is communicated to partners. Elevated tides with a corresponding higher risk of coastal flooding in combination with high winds are forecast between 20th and 25th March, 18th and 23rd April and 17th and 21st May.

3.2 Kent Flood Risk Management Committee will continue to receive regular updates on water resources, flood alerts, severe weather warnings and operational response. It is worthy of note that additional duty officer capacity has now been rostered while command and control facilities have been expanded as a contingency against any adverse local impacts arising from Brexit. The potential combination of severe weather with congestion informs contingency planning.

4. Recommendations

4.1 That Members:

- Note the current water resources situation and warnings received since the last meeting of the Committee; and
- Contribute to planning through oversight and debate.

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¹ Please see appendix 1

² Please see appendix 2

³ Please see appendix 3

Appendix 1: Environment Agency Flood Alerts issued since 12th November 2018*

Date issued	Flood alert area	Event leading to flooding
28/11/2018	River Rother and its tributaries from Turks Bridge to the Royal Military Canal	1. Frontal Rain
02/12/2018	River Rother and its tributaries from Turks Bridge to the Royal Military Canal	
08/12/2018	Coast from Whitstable to Margate	2. Tidal Surge combining with spring tides
08/12/2018	Isle of Sheppey and coast from Kemsley to Seasalter	
08/12/2018	Tidal Medway, Medway estuary and Isle of Grain	
08/12/2018	Coast from Dartford to Allhallows	
20/12/2018	River Beult from Pluckley and Bethersden to Hampstead Lock at Yalding	3. Scattered heavy showers and frontal rain in the preceding days
20/12/2018	River Rother and its tributaries from Turks Bridge to the Royal Military Canal	
20/12/2018	Upper River Stour	
20/12/2018	Lower River Medway	
20/12/2018	River Bourne from Hadlow to East Peckham	
22/12/2018	Tidal Stour area from Fordwich to Stonar Cut	
08/01/2019	Coast from Pegwell Bay to Deal including the Tidal Stour	4. Large tidal surge combined with small spring tides
08/01/2019	Isle of Sheppey and coast from Kemsley to Seasalter	
08/01/2019	Coast from Whitstable to Margate	
08/01/2019	Tidal Medway, Medway estuary and Isle of Grain	
08/01/2019	Coast from Dartford to Allhallows	
01/02/2019	Upper River Stour	5. Persistent frontal rain including heavy showers
02/02/2019	River Beult from Pluckley and Bethersden to Hampstead Lock at Yalding	
08/02/2019	River Bourne from Hadlow to East Peckham	6. Heavy frontal rain
08/02/2019	River Rother and its tributaries from Turks Bridge to the Royal Military Canal	
08/02/2019	Lower River Medway	
09/02/2019	Upper River Medway	
09/02/2019	Rivers Eden and Eden Brook	
09/02/2019	Middle River Medway	

Appendix 2: Kent Severe Weather Warnings issued since 12th November 2018

	November	December	January	February
Wind	0	0	0	1
Fog	0	1	0	4
Ice	0	0	2	2
Ice & Fog	0	0	1	0
Snow & Ice	0	0	3	1

Appendix 3: Environment Agency Thames Barrier closures since 12th November 2018

Thames Barrier closures	Date	Status
Thames Barrier closed	13/11/2018	Test
Thames Barrier closed	08/12/2018	Operational
Thames Barrier closed	10/01/2018	Test
Thames Barrier closed	11/02/2018	Test