To: Kent Flood Risk Management Committee – 8th March 2016

From: Michael Harrison, Chairman of Kent Flood Risk Management

Committee

Subject: Environment Agency and Met Office Alerts and Warnings and

KCC flood response activity since last meeting.

Classification: Unrestricted

Summary: To update Kent Flood Risk Management Committee on Environment Agency and Met Office Alerts and Warnings, and flood response activity and planning since the last meeting of the Committee on 20th November 2015. Members are requested to note this report.

1. Background

- 1.1 KCC Resilience and Emergencies Unit and Contact Point receive Environment Agency Flood Alerts and Warnings and Met Office Severe Weather Alerts and Warnings by e-mail on a 24 hour basis. Potential impacts upon communities, infrastructure and the wider environment are then assessed and a response mobilised as required.
- 1.2 Some 70,000 properties in Kent are located within areas identified as potentially at risk of fluvial (river) or tidal flooding. Where practically possible, these properties are offered a Flood Warning Service by the Environment Agency. However, other parts of the county are also vulnerable to surface and ground water flooding. 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 Resilience Forum Severe Weather Advisory Group.

2. Latest situation

- 2.1 Winter 2015/16 was characterised by mild day and night time temperatures, with December 2015 the warmest on record. The average December temperature for England was 9.5C, equating to 5.1C above the long-term average for the month and 2C above the record of 7.5C set in 1934. The very mild but drier than average December in the south east gave way to a still unseasonably warm but wet January. Especially significant rainfall events were experienced across the county between the 7th and 13th January, with east Kent hardest hit.
- 2.2 Early January saw localised surface water flood events adversely impact the operation of critical infrastructure in the county including major roads, pumping stations, waste water and gas transmission pipelines. Some 120 residential properties within the Dover and Shepway Districts were either flooded or required active interventions to prevent their inundation. Commercial premises in south east Kent ranging from a hotel, to a supermarket and residential care home were also

affected by surface water flooding. A breakdown of these impacts is appended to this report¹.

- 2.3 As previously reported, autumn 2015 saw peak tidal ranges in the natural 19 year astronomical tide cycle, with the Kent coast still experiencing significant tidal ranges as a result. Indeed, when Storm Imogen and its associated weather fronts moved across the county between 8th and 10th February, a total of 11 tidal Flood Alerts were issued by the Environment Agency for the Kent coast. Significantly, Kent County Council mobilised and chaired a multi-agency Storm Imogen Severe Weather Advisory Group for the duration of this named storm from its County Emergency Centre at County Hall.
- 2.2 Since the last meeting of the Kent Flood Risk Management Committee on the 20th November 2015, a total of 54 Environment Agency flood alerts and no warnings were issued². This compares with 50 flood alerts and 9 warnings for the same period in 2014/15.
- 2.3 A total of 9 yellow and one amber Met Office Severe Weather Alerts and Warnings have been issued since the last meeting³. This exceeds the 7 yellow alerts and warnings issued during the corresponding period in 2014/15.
- 2.4 The Thames Barrier has been closed on 3 occasions since the last meeting of this Committee in November 2015, twice for test purposes and once operationally during Storm Imogen in early February.

3. Next Steps

- 3.1 The Kent Resilience Forum has now formally agreed that its 2016 multiagency emergency planning exercise will comprise a coastal flooding scenario geographically focused upon the Shepway District.
- 3.2 Kent Resilience Forum Pan Kent Flood Group has established 3 task and finish groups, tasked respectively with: updating Kent's 13 Local Multi-agency Flood Plans and strategic Pan-Kent Flood Plan; enhancing the innovative flood warden scheme; and refreshing the county's reservoir inundation planning.
- 3.3 Members will continue to be regularly updated on flood alerts, severe weather warnings, operational response, and ongoing Kent Resilience Forum planning for flood preparedness and response in the county.

4. Recommendations

- 4.1 That Members:
 - Note the level of alerts and warnings received since the last meeting of the Committee; and
 - Contribute any additional matters arising from debate by the Committee.

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Background documents: None

² please see appendix 2

¹ please see appendix 1

³ please see appendix 3

Appendix 1: Briefing Note - Premises and Critical Infra-structure flooded during the January 4th - 13th 2016 rainfall events in Kent (or requiring interventions to prevent their flooding)

Premises flooded or requiring agency interventions to prevent internal flooding (Source: KFRS, KCC, Ashford BC, Dover DC, Shepway DC, Tunbridge Wells BC data)

120 residential properties - breakdown by district: Shepway District Council x78, Dover District Council x31, Ashford Borough Council x6, Tunbridge Wells Borough Council x4, Canterbury City Council x1

1 residential care home - breakdown by district: Shepway District Council 1

1 hotel - breakdown by district: Dover District Council x1

1 supermarket - breakdown by district: Shepway District Council x1

Highway infra-structure - Roads closed or partly closed as result of surface water flooding (Source: KCC data)

A260, Denton

A256, Whitfield

A292 Chart Road, Ashford

A20 Ashford Road (East of Square Hill Road junction), Maidstone

Canterbury Road, Hawkinge

Alkham Valley Road (between Hockley Sole and Stombers Lane), Hawkinge

Canterbury Road junction with Church Lane, Lydden

Canute Road, Deal

Freemens Way, Deal

Green Lane / Singledge Lane / Nursery Lane junction, Whitfield

Golf Road, Deal

Allenby Avenue, Deal

Albert Road, Deal

The Lane, Guston

Meggett Lane, Alkham

Greenwich Lane, Ewell Minnis

Capel Street, Capel-le-Ferne

Coldred Hill, Coldred

Sandwich Road, Whitfield

Staple Road, Wingham

Woodensborough Lane, Eastry

London Road, Temple Ewell

Sandwich Road, Nonington

Easole Street, Nonington

Lenham Road (at Hill Farm culvert), Harrietsham

Stockham Lane, Swingfield

Penn Lane, Sundridge

Stone Street, Stowting

Church Lane, Lydden

Bears Lane, Hothfield

Brishing Lane (at Shaw Stream culvert), Maidstone

Maidstone Bridge Gyratory underpasses

Other infra-structure affected by surface water flooding (Source: SGN, and KCC data)

1 gas pipeline - affecting some 400 properties in the Leigh area between 11th and 13th January **3 pumping stations** – breakdown by district: Dover District Council x2, Shepway District Council x1

1 waste-water pipeline - impacting Local Nature Reserve / Local Wildlife Site in Maidstone area

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Appendix 2: Environment Agency Flood Alerts issued since 20th November 2015			
Flood Zone	Date issued	Status	
River Rother and its tributaries	03/01/2016	Alert	
Rivers Eden, Eden Brook and Kent Ditch	03/01/2016	Alert	
River Beult from Pluckley and Bethersden to Yalding	03/01/2016	Alert	
Upper River Medway from Forest Row to Penshurst	03/01/2016	Alert	
Great Stour from Charing Heath to the A2070	03/01/2016	Alert	
Hamstreet Sewage Arm	03/01/2016	Alert	
River Bourne	03/01/2016	Alert	
Plenty, Swalecliffe and West Brooks	03/01/2016	Alert	
River Teise from Lamberhurst to Goudhurst	03/01/2016	Alert	
Middle River Medway from Penshurst to Yalding	03/01/2016	Alert	
Lower River Medway from Yalding to Allington Lock	03/01/2016	Alert	
River Teise and Lesser Teise from Horsemonden to Yalding	03/01/2016	Alert	
River Stour from A2070 to Fordwich	03/01/2016	Alert	
Upper River Stour	05/01/2016	Alert	
New Romney Sewage Arm	05/01/2016	Alert	
North and South Streams from Eastry to east of Sandwich	05/01/2016	Alert	
Rivers on the Isle of Sheppey	05/01/2016	Alert	
Plenty, Swalecliffe and West Brooks	05/01/2016	Alert	
River Teise and Lesser Teise from Horsemonden to Yalding	07/01/2016	Alert	
River Bourne	07/01/2016	Alert	
River Rother and its tributaries	07/01/2016	Alert	
Hamstreet Sewage Arm	07/01/2016	Alert	
Rivers Eden, Eden Brook and Kent Ditch	07/01/2016	Alert	
Lower River Medway from Yalding to Allington Lock	07/01/2016	Alert	
Upper River Medway from Forest Row to Penshurst	09/01/2016	Alert	
Upper River Stour	09/01/2016	Alert	
River Rother and its tributaries	09/01/2016	Alert	
Middle River Medway from Penshurst to Yalding	10/01/2016	Alert	
Rivers on the Isle of Sheppey	10/01/2016	Alert	
River Bourne	11/01/2016	Alert	
Rivers Eden, Eden Brook and Kent Ditch	11/01/2016	Alert	
Rivers on the Isle of Sheppey	13/01/2016	Alert	
Upper River Medway from Forest Row to Penshurst	26/01/2016	Alert	
River Rother and its tributaries	26/01/2016	Alert	
Rivers Eden, Eden Brook and Kent Ditch	27/01/2016	Alert	
Middle River Medway from Penshurst to Yalding	27/01/2016	Alert	
Upper River Medway from Forest Row to Penshurst	29/01/2016	Alert	
River Rother and its tributaries	29/01/2016	Alert	
Rivers on the Isle of Sheppey	29/01/2016	Alert	
River Darent Catchment	30/01/2016	Alert	
Lower River Medway from Yalding to Allington Lock	30/01/2016	Alert	
Upper River Medway from Forest Row to Penshurst	07/02/2016	Alert	
River Rother and its tributaries	07/02/2016	Alert	
Sandgate to Dungeness	08/02/2016	Alert	
Fairlight to Dungeness including the Tidal Rother	08/02/2016	Alert	
Coast from Sandgate to Dungeness	08/02/2016	Alert	
Fairlight to Dungeness including the Tidal Rother	08/02/2016	Alert	
Fairlight to Dungeness including the Tidal Rother	09/02/2016	Alert	
Pegwell Bay to Deal including the Tidal Stour	09/02/2016	Alert	
Isle of Sheppey and Coast from Kemsley to Seasalter	10/02/2016	Alert	
Dartford to Allhallows	10/02/2016	Alert	
Tidal Medway, Medway Estuary and Isle of Grain	10/02/2016	Alert	
Tidal Medway, Medway Estuary and Isle of Grain including Aylesford	10/02/2016	Alert	
Pegwell Bay to Deal including the Tidal Stour	10/02/2016	Alert	

Appendix 3: Met Office Severe Weather Alerts and Warnings issued since 20th November 2015			
Met Office Alerts and Warnings	Date issued	Status	
Yellow Warning of Rain for London & South East England	04/01/2016	Warning	
Yellow Warning of Rain for London and South East England	06/01/2016	Warning	
Yellow Warning of Rain for London and South East England	09/01/2016	Warning	
Yellow Warning of Rain for London and South East England	09/01/2016	Warning	
Yellow Alert of Rain for London and South East England	25/01/2016	Alert	
Yellow Warning of Rain for London & South East England	29/01/2016	Warning	
Yellow Warning of Wind for London & South East England	06/02/2016	Warning	
Yellow Warning of Wind for London & South East England	06/02/2016	Warning	
Amber Warning of Wind for London & South East England	07/02/2016	Warning	
Yellow Warning of Snow and Ice for London & South East England	14/02/2016	Warning	