

From: Tony Hills, Chairman of the Kent Flood Risk Management Committee
To: Scrutiny Committee – 24 January 2020
Subject: The work of the Kent Flood Risk Management Committee
Classification: Unrestricted

Summary: This report provides the Scrutiny Committee with an overview of the work of the Kent Flood Risk Management for the period May 2018 to November 2019.

Recommendation(s): The Scrutiny Committee is asked to note the contents of the report.

1. Introduction

- 1.1 The Kent Flood Risk Management Committee last reported to this Committee on 18 November 2018.
- 1.2 The Committee's Terms of Reference are set out at Appendix 1 to this report. The membership of the Committee comprises 7 Members of the County Council. There is also a standing invitation to each of the District Councils, the Internal Drainage Boards in Kent, Kent Fire and Rescue Service and KALC to send representatives to the meetings. All these representatives are treated as full Committee Members except for the formal items of business. The Committee's policy is to encourage attendance by as many organisations as wish to be represented. Attendance has dipped slightly as there has not been a county-wide flooding event in recent years, although there has been a significant number of highly localised emergencies.
- 1.3 Officer support to the Committee is provided by Tony Harwood (Resilience and Emergency Planning Manager) and Max Tant (Flood and Water Manager). Senior Officers from KCC Highways and the Environment Agency also report regularly to the meetings.
- 1.4. The Committee has met on four occasions following its last report to Scrutiny. The topics covered during this period were:
- The Highways Drainage Programme (in both 2018 and 2019),
 - The work of the National Flood Forum,
 - The Met Office's Climate Change Impacts Forecast (UKCP18),
 - The Environment Agency's Flood Risk Vision for the future of Kent,
 - The Middle Medway Flood Resilience Project,
 - The Environment Agency's Coastal Modelling for Kent,
 - The Kent Environment Strategy – Sustainable Communities,
 - The KCC Flood Response Plan Update,
 - Flood Risk Management Policies (Drainage and Planning; Land Drainage Policy; Section 19 Investigations),
 - Water Sustainability and Farmer Co-ordination (NFU),
 - Drainage and Wastewater Management Plans,
 - Kent Emergency Planning,
 - Standing reports on Environment Agency and Met Office Alerts and Warnings and KCC flood response activity.

- 1.5 In 2018/19, the Committee adopted a two-pronged approach to its work. It continued to gather as much information as possible on the effects of and preparedness for climate change whilst also assessing the County's ability to respond to events in the short term.
- 1.6 Nearly all of the items discussed were accompanied by presentational materials. These can be accessed on the KCC webpage for the meetings themselves or by requesting them from Democratic Services (see contact details at the end of the report).

2. Committee meeting of 12 November 2018.

- 2.1 The Committee received a joint report entitled "Meeting the Challenge of Highways Drainage" from Michael Payne (Deputy Cabinet Member for Planning, Highways, Transport and Waste) and Earl Bourner (Asset Manager, Drainage, Structures and Safety Barriers). Michael Payne set the scene by describing the problems of drainage maintenance facing the County and the strategy for dealing with them. Earl Bourner explained how KCC Highways was moving to an Asset Management approach in order to manage the drainage asset using a risk-based model. He also introduced many Members of the Committee to "*map 16*" which enabled digitally mapping of the County's drainage assets and consequent improvement to the maintenance process.
- 2.2 Sanjay Johal from the National Flood Forum (NFF) described his national charity's work in helping to support communities at risk of flooding across the country. It had set up and supported 250 active Flood Action Groups made up of community representatives. It helped communities to recover when they had been flooded, working to ensure that flood risk communities were at the centre of policy making and operational delivery. One of the NFF's key objectives was improving understanding of local flood risk within local communities. Sanjay Johal's presentation gave the Committee a greater understanding of the crucial role that voluntary organisations such as the NFF play in the field of flood risk management.

3. Committee meeting on 11 March 2019

- 3.1 Mark Rogers, the Met Office Advisor on Civil Contingencies gave a presentation on the Climate Change Impacts Forecast 2018 (UKPC 18) which had been launched at the end of 2018 using the most recent scientific evidence to provide a comprehensive analysis of how the climate in the UK could change by the end of the 21st Century. This document updated its predecessor which had been published in 2009. Its projections were based on the latest developments in climate science, including state-of-the-art global climate models, innovative regional climate models and up to date observational data. The headline findings were that there would be hotter, drier summers leading to more thunderstorms and torrential downpours. There would also be a greater frequency of milder, wetter winters leading to more river flooding. There would also be further rises in sea level around the entire UK coastline, particularly in the South. It was projected that by 2100 there would be a rise of between 29 cm and 115 cm depending on whether there was a low or high emission scenario.
- 3.2. Mark Rogers' presentation paid particular attention to the period 2020 to 2039. He reported that the average winter temperature was most likely to rise by up to 1°C in the 2020-39 period leading to a 10% increase in rainfall. Summer temperatures were expected to rise by 1 to 2° between 2020 and 2039 leading to a drop in rainfall of 10% (accompanied by severe, localised flash flooding). The projections for the rest of this century were even more significant.

- 3.3** Frank Heeley from the Environment Agency gave a presentation on the Flood Risk Vision for the future of Kent. He began by discussing the 25-year Environment Plan. This was an ambitious document put together by DEFRA covering all aspects of the environment, including waste, clean water, and the mitigation of climate change effects. One of its targets was the protection of 300,000 homes from flooding by the end of the current funding cycle in March 2021. This target was just over half-way to being fulfilled. He said that there were some 60,000 residential and commercial properties in Kent at risk of flooding from the rivers and the sea. This estimated figure could rise in the light of the revised climate change projections and because development continued to be permitted in Flood Zone 2. He also talked about funding pressures which could rise significantly as a result of the likely growth in summer flash flooding events.
- 3.4.** Peter Waring from the Environment Agency gave an update on the Middle Medway Flood Resilience Project. The area in question lay within the Low Weald, focused on the confluence of the Medway, the Beult and the Teise. It contained the parishes of Yalding, Hunton, Collier Street, Marden, Nettlestead, East Farleigh, West Farleigh Wateringbury, Teston and Barming as well as other smaller communities.
- 3.5** None of the potential measures for the reduction of flood risk could be implemented in this area without increasing the risk to other communities. For this reason, the only viable option was property flood resilience. He described its implementation in detail.
- 3.6** The Committee found this meeting particularly important because it gained an insight into the extent of the climate change problem and its impact, as well as the methods developed by the agencies who were undertaking mitigation and remedial measures in response to the significant complications posed by existing and future climatic conditions.

4. Committee meeting on 22 July 2019.

- 4.1** This meeting began with a presentation on Coastal Modelling delivered by Samantha Howe from the Environment Agency. She explained how these computer models helped to understand areas at risk. It identified scenarios for areas in both defended and undefended circumstances in the present day as well as the future, taking climate change into account and including increases in offshore wind speeds. There were three flood risk models covering the Kent coast. These were the North Kent coast from Erith to Seasalter, the East Kent coast from Seasalter to Hythe and for Romney Marsh (covering Hythe to Fairlight in East Sussex). These models were in the process of being updated to take account of recent tidal surge events and new data for extreme sea levels. She also set out the very localised level of detailed analysis that the modelling was able to provide.
- 4.2** Christine Wissink, the KCC Adaptations Manager gave the second presentation, which was on the topic of Sustainable Communities. It covered the work being undertaken in partnership with national and international organisations to make adaptations for climate change.
- 4.3** Identification of the necessary adaptations has been informed by the recently - developed Kent Climate Change Risk and Impact Assessment; the Social Care Assessment on Flood Disadvantage; and the Severe Weather Impact Monitoring System (SWIMS). The Climate Change Risk and Impact Assessment identified six priority risks, four of which

were significant in terms of the work of the Kent Flood Risk Management Committee. These were identified as:

- (a) Flooding and coastal change risks to communities, businesses and infrastructure;
- (b) Risk of storm events/intense rainfall impacting productivity and transport infrastructure. This was particularly significant for the Fruit industry;
- (c) Overheating, flooding, drought and coastal change risks for Kent's natural capital; and
- (d) Soil erosion and slope destabilisation as a result of flooding and drought impacting infrastructure, the natural environment and productivity. This was an additional risk for Kent beyond the national risks set out in the UK Climate Risk Assessment 2017 and was particularly significant for the Rail industry.

4.4 The meeting also received updates from Tony Harwood on the Flood Response Plan and from Max Tant on Flood Risk Management Policies.

5 Committee Meeting on 11 November 2019

5.1 The Committee received a presentation from Tom Ormesher of the National Farmers' Union on Water Sustainability and Farmer Co-ordination, which concentrated on the role that farmers were being encouraged to play in respect of flood, water quality and water resource management caused by climate change. This was crucially important, not least because of Kent's crucial contribution to the UK's agricultural economy.

5.2 Tom Ormesher also told the Committee that water was going to become a more restricted resource in the future. For example, the volume of water for irrigation would need to increase by 700% by the 2050s for present day levels of potato production to be able to continue.

5.3 The approach that Tom Ormesher was advocating was one of developing farmer engagement in a business-friendly manner to build up a willingness to identify and adopt the necessary measures. He explained how this approach had succeeded in the USA and elsewhere.

5.4 Earl Bournier gave an update report on Winter Readiness in which he described how Kent Highways' increased resources coupled with an asset management approach would lead to fewer incidents of highway flooding, roads and footways that were protected from the adverse effects of standing water, reduced disruption as a result of carriageway flooding, and greater resilience against increasingly frequent intense rainfall events.

5.5 Max Tant's report on Drainage and Wastewater Management Plans concentrated on the water industry which is under pressure from the Government, the National Infrastructure Commission and the Environment Agency to provide more long-term plans for drainage and wastewater. In response, it has brought together many organisations with responsibilities for differing aspects of drainage and flooding, to produce a new framework for long term drainage and wastewater planning. This framework will be used by water companies (in England and Wales) to produce their long-term drainage and wastewater management plans (DWMPs).

- 5.6** The intention is for the DWMPs to be developed collaboratively in partnership with organisations such as Lead Local Flood Authorities, Planning Authorities and Highways Authorities who have an interest in drainage and wastewater.
- 5.7** Tony Harwood And Lisa Guthrie (KCC Kent Resilience Team Manager) gave a joint presentation on Emergency Planning in Kent, setting out the detail of KCC's work in this field, both internally and in collaboration with other agencies. The Committee found it very useful to gain a broad perspective of the scope and detail of Emergency Planning work.
- 5.8** Tony Harwood provided his regular update on Environment Agency and Met Office Alerts and Warnings and KCC flood response activity. Over the past 18 months, the most common feature of these report has been the unpredictability of the number flooding events, with dramatic differences being recorded in the same month from one year to the next. Coastal flooding and localised flash flooding throughout the county have occurred throughout this period, whilst groundwater aquifers have often been very low. Even after a month of heavy rainfall, they are currently within the "normal" to "below normal" ranges.

6 Future activities

- 6.1** The Committee will maintain its two-pronged approach in 2020, continuing to receive updates on how various agencies are adapting to climate change, whilst also monitoring responses to current concerns.

7. Conclusions

- 7.1** Kent Flood Risk Management Committee is carrying out an important oversight and scrutiny function in receiving regular reports on the work carried out by KCC and its partner agencies. The Committee's influence has benefited from the continued positive engagement by those local authorities who regularly attend and by the positions of authority that their representatives hold within those organisations.
- 7.2** Climate change is undeniably having the effect of increasing the threat of flooding at the same time as major housing developments are taking place in Kent and the South East. The Committee's role is to examine whether and how KCC and all its partner agencies are working together effectively to reduce the risk and to respond to events. The general picture of preparedness is encouraging. Sudden flash flooding is a growing risk and is responded to very thoroughly whenever and wherever it occurs, whilst preparations for major coastal and fluvial floods and reservoir inundation are constantly being updated and tested. At the same time, research of a very high standard is being carried out by different agencies, and the information gathered is widely disseminated amongst them and shared with communities. The Met Office's Climate Change Impacts Forecast 2018 (UKPC 18) is the most important data source and its findings are being used to update most plans. There is a cross-over period where reviews which began before UKPC's publication are now, themselves being updated.
- 7.4** The Committee does not have the resources to help develop full co-ordination of all the partner agencies. This is the reason that the pending Select Committee on Climate Change is particularly important. The process of information-gathering should be a learning exercise for all concerned, whilst the conclusions and recommendations of the Select Committee should be enormously valuable for years to come.

8. Recommendation

8.1 The Committee is invited to note the content of this report

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