KENT COUNTY COUNCIL

KENT FLOOD RISK MANAGEMENT COMMITTEE

MINUTES of a meeting of the Kent Flood Risk Management Committee held in the Council Chamber, Sessions House, County Hall, Maidstone on Thursday, 8 July 2021.

PRESENT: Mr A R Hills, Mr B H Lewis, Ms M McArthur, Mrs L Parfitt-Reid, Mr H Rayner (Substitute for Mr N J Collor), Mr M J Sole, Ms L Wright, Mr H Rogers (Tonbridge and Malling BC), Mr P Thomson (Tunbridge Wells BC) and Mr C Mackonochie (KALC)

IN ATTENDANCE: Mr T Harwood (Resilience and Emergency Planning Manager) and Mr A Tait (Democratic Services Officer)

UNRESTRICTED ITEMS

6. Election of Chairman
(Item 2)

(1) Mr H Rayner moved, seconded by Ms M McArthur that Mr T Hills be elected Chairman of the Committee.

Carried unanimously

(2) Mr Hills thereupon took the chair.

7. Terms of Reference of the Committee
(Item 3)

The Committee noted its Terms of Reference.

8. Minutes of the meeting on 15 March 2021
(Item 5)

RESOLVED that the minutes of the meeting held on 15 March 2021 are correctly recorded and that they be signed by the Chairman.

9. Little Venice Country Park and Marina
(Item 8)

(1) The Chairman brought this item forward from its original point on the agenda.

(2) The Chairman introduced this item by saying that members of the Committee had raised the issue of flood risk at Little Venice at a previous meeting. In response, the Chairman and officers had investigated the situation. This had taken the form of a

virtual meeting with the landowner who had supplied the information which was before the Committee as part of the report. This information set out the measures that were being taken to protect the vulnerable residents on the site.

(3) Mr Harwood said that there was a historic planning permission for a mobile home site at Little Venice Country Park. there had been significant flooding events at the site in recent years, most significantly in the Autumn/Winter period of 2000 which had involved a nighttime rescue by boat. This event had placed the residents and responders at risk. Residents had needed to be rescued from their caravans due to the threat posed by the high level of water.

(4) Mr Harwood continued by saying that since the first event, there had been a number of precautionary evacuations, including some carried out during the previous winter.

(5) Mr Harwood said that the site was a permitted development and that KCC officers and partner organisations had sought to overcome the risks in the best way possible, using such measures as the on-site Emergency Plan, working closely with the site operators and residents. There had been additional work and investment in the flotation devices which made them more operationally robust.

(6) Mr Harwood concluded by saying that an early operational response was key to achieving safety at the site. Arrangements for this were working very well in collaboration with the operator, enabling the responders to move the residents to a safe location during the recent events before the flood water had arrived. Discussions had taken place with Social Care Officers in respect of the increasing levels of need as residents became more vulnerable. Potential improvements to the layout of the site were also being actively considered.

(7) Mr Rayner thanked the Chairman and the Officers from KCC and its partners for their achievements up to this point. He considered that what had been achieved represented a big step forward, although there were still improvements to be made. He agreed that early intervention was key. This activity was aimed at supporting those who were older, especially those with mobility difficulties. Many had moved to the site from social housing. Safety at the site relied heavily on the ability and willingness of Adult Social Care to fund decampment in the event of flooding. In his view, the letting and selling of caravans ought to be much more carefully controlled. Those with the greatest mobility difficulties should be placed on the higher ground. This was particularly important as the residents who had been evacuated to a hotel had been expected to make their own arrangements to return, placing a burden on Yalding PC.

(8) Mr Rayner continued that the planning consents had initially been temporary. The Law had, however, changed as a result of Court precedent. This meant that people were now able to live at the site all year round, which meant that many were living there during the winter months when the flooding risk was at its greatest.

(9) Mr Rayner said that the picture of the flotation tanks on page 21 of the agenda papers demonstrated that the doors were only some six inches above the bottom of the caravan. He did not believe that they were watertight.

(10) Mr Rayner said that another problem was that when the caravans were tied to the jetty, they lost their buoyancy and were unable to float. This should be investigated, especially in respect of those caravans in the deepest water.

(11) Mr Rayner asked when the residents who had the greatest mobility difficulties would be moved and whether there could be a report-back to confirm that this had happened.

(12) The Chairman said that a response to Mr Rayner's questions would be sought from the landowner. A progress report would be given to either the November or March Committee meeting.

(13) Mr Lewis commented that contact details for the Flood Wardens and the Environment Agency were either missing or unclear.

(14) Mr Harwood said that Officers were holding discussions with the Maidstone BC Planners. The points made by Mr Rayner would be discussed with the site owner at the earliest opportunity. In response to Mr Lewis' comments, the Plan was the Operator's Plan rather than that of KCC or the EA. He had an ongoing commitment to help the Operator refine the Plan.

(15) Mrs Wright suggested that a survey could be carried out of all Kent's caravan parks as they were generally similar in nature and experiencing similar difficulties.

(16) Mr Rogers said that during the Committee's site visit to Little Venice some 7 to 8 years earlier, he had been assured that the flotation structure had been designed in such a way as to ensure that the whole caravan was lifted clear of the water. He then asked whether there had been any instances of residents refusing to be evacuated during recent flooding events at the site.

(17) Mr Harwood confirmed that the mobile homes on site had been thoroughly tested before the previous winter and that there had been no water ingress into the mobile homes. All the residents had left the site in good time during the three evacuations in 2020/21. There had been some practical issues as some of the residents had particular needs and also with some properties with stairs. Some residents' families had also needed to be involved. This demonstrated the need for early evacuation. The residents had a strong folk memory of the events of 2000 and co-operated fully. In the event that a resident refused to leave the site, the only approach open to offers was persuasion (except in very rare circumstances).

(18) Mrs Parfitt-Reid asked who was responsible for disseminating information to the residents. Mr Harwood replied that the site operator had a role as the landowner. The EA also had the responsibility to operate the Warning service as the site was in a discreet Flood Zone.

(19) RESOLVED that:-

(a) the report be noted together with the areas that will continue to be explored to the point of resolution; and

(b) an update be presented to the Committee in November or March

10. Introduction to the work of the Committee

(Item 6)

(1) The presentation slides for this item are contained in the agenda items which can be found in the electronic papers for this meeting on the KCC website.

(2) Mr Tony Harwood introduced his presentation on the work of the Emergency Planning and Resilience Service, which formed one of the key components of the Committee's remit. He said that the genesis of Flood Risk Management Committees had been the Summer Floods of 2007 which had seen very significant flooding events in the North of England, Gloucestershire. The result had been very profound impacts on some 55k inundated properties. There had also been some loss of life. Following this, the Government had set up a Review led by Sir Mike Pitt, the former Chief Executive of KCC. This Review had made 99 recommendations, including the need for an overview and scrutiny committee to be established in each upper tier local authority area.

(3) Mr Harwood continued by saying that flood risk management committees provided an opportunity to consider concerns of local communities as well as standing reports. In Kent, there were representatives from many of the District Councils and Parish Councils as well as Kent Fire and Rescue. The local IDBs were also invited. Although only KCC Members were entitled to vote, the only time that voting had ever occurred was when the Chairman of the Committee was elected.

(4) Administrative support to the Committee was provided by Mr Andrew Tait from KCC Democratic Services. Specialist officer support was provided by Mr Max Tant, KCC Flood Risk Manager and by Mr Hartwood who led the Emergency Planning Team. His role was to organise the operational response. His duties consisted of responding, planning, training, the development of emergency plans and ensuring that KCC was compliant with the Civil Contingencies Act 2004 and some 50 other legal requirements.

(5) Mr Harwood said that whilst as a "key risk" flooding was a very important aspect of his work, he also carried out his emergency planning role in many other areas such as off-site work on Dungeness B, 'Top Tier' Control of Major Accident Hazard) industrial sites, Major Accident Hazard Pipelines and larger reservoirs. There were 60 large reservoirs in Kent or on its boundaries with other Local Authorities. A reservoir exercise was due to be held in Autumn 2021 to complement that held at Mote Park in Maidstone in 2020.

(6) Mr Harwood also had emergency planning operational roles such as responding to Covid-19. Additional responsibilities were the co-ordination of post-incident site demolition, clearance, waste disposal, decontamination, testing and analysis, ensuring effective animal and plant health emergency planning and response contingencies for Notifiable and other destructive pests and pathogens such as Foot and Mouth Disease, Avian Influenza, Xylella and Ash Dieback.

(7) The Emergency Planning role also included the production, development, maintenance and testing of Emergency Plans for Major Emergencies, Business Continuity, Recovery, Flood Response and others. It also ensured that resilience

principles were considered within infrastructure planning and delivery, local and other development plans, and some major planning applications.

(8) Mr Harwood then showed a bar chart indicating the number of alerts received by the 24/7 Duty Emergency Planning Officer in each financial year from 2002/03 onwards. In 2013/14 the number had dramatically risen from the previous average of about 150 to 645. This was accounted for by the winter flooding events that year. A similar peak had occurred in 2019/20 as well as 2020/21 when 689 emergency calls had been received. These figures aligned with similar figures recorded by Kent Highways.

(9) Mr Harwood said that the third highest number of emergency calls to the Duty Emergency Planning Officer in 2020/21 had been in respect of high wind impacts. The second highest volume of calls had been flood response. The winter of 2020/21 had seen a very high number of such calls at the same time as Covid-19 pandemic issues such as border closures were at their height. Unsurprisingly, the highest total related to human health, where Emergency Planning had written the Gold Command response document and taken responsibility for the delivery of PPE to vulnerable communities.

(10) Mr Harwood replied to a question from Mr Lewis by saying that following the 2000 flooding events, strong consideration had been given to a number of issues including how the Environment Agency's Flood Areas had been drawn up, how and where Flood Alerts had been issued and who they had been issued to. The Pent Stream in Folkestone was now a Flood Alert Area. Public awareness was a critical issue. Communities that were regularly impacted by flooding events had a high level of awareness, whilst others that were not so regularly affected and were not in Flood Areas did not. The impact of Climate Change was that the location of flooding events was becoming less predictable. There had been a significant increase in intense localized summer precipitation events. A major task was therefore to engender greater awareness in both residents and planning authorities who were facilitating development within the County. The result of this was that work to ensure that drainage was properly maintained and that the effects of the loss of greenfield land was mitigated had been prioritized and was improving significantly. A standard planning condition was now being used by Local Authorities in the County which placed additional responsibilities upon developers to ensure that their SUDs systems were effective.

(11) Mr Lewis said that residents in Thanet were very concerned that, although they could identify where flooding was most likely to occur, no mitigation seemed to be taking place. Mr Harwood replied that work had been undertaken in Thanet. An example of this was the establishment of rain gardens to provide better drainage in flooding hotspots. This linked in with tree planting initiatives to provide shelter, cover and absorption. This project was being repeated in other parts of Kent. He added that it was critical for all flooding events to be reported. This could be done either to the Emergency Planning Team, the District Council or direct to Mr Tant's Flood Management Team. One of Mr Harwood's duties after a flooding event was to itemize those properties where inundation had taken place. Analysis undertaken by the Flood Management Team could well lead to funding being unlocked.

(12) In response to a question from Ms McArthur, Mr Harwood said that the Severe Weather Advisory Board (SWAG) which consisted of all the partner agencies, would

meet when the Met Office or EA gave a Warning that a severe weather event was likely to occur. Its role was to help co-ordinate the response. Following the event, SWAG would carry out a review in order to learn from the experience. The Kent Resilience Forum, established under the Civil Contingencies Act 2004 also met regularly to plan response co-ordination. This was a partnership of Level 1 and 2 responders (including the emergency services, local authorities, Kent Fire and Rescue, Kent Police, the utilities and the Port Authorities). The Kent Resilience Team consisted of officers from KCC, Kent Fire and Rescue and Kent Police who worked as a team. All the agencies recognized that partnership working was essential.

(13) The Chairman said that he was one of three KCC representatives who sat on the EA's Regional Flood and Coastal Committee and the Kent and Essex Inshore Fisheries and Coastal Authority (IFCA). The joint working undertaken by these Committees enabled all the partner authorities to share information from a different perspective to that of the emergency responders, underlining Mr Harwood's point about the importance of partnership working.

(14) Mr Mackonochie said that the role of Flood Wardens contributed vitally to information sharing in that they represented the local starting point for intelligence gathering.

(15) Mr Harwood said that the communities most at risk of flooding were very well served by their numerous flood wardens. There was, however, a dearth of wardens in a number of urban areas, particularly where the population was more transitory. Work was taking place with District Councils and other partners to rectify this situation.

(16) RESOLVED that Mr Harwood be thanked for his presentation an that its content be noted.

11. Short Term Adaptation for Long Term Resilience to Climate Change - Presentation by Tom Henderson, KCC Environmental Projects
(Item 7)

(1) The slides from Mr Henderson's presentation are contained in the electronic papers for this meeting on the KCC website.

(2) Mr Henderson began his presentation by saying that over the previous 4 years KCC had designed and led an EU Interreg project named STAR2Cs. Its purpose was to promote climate adaptation by overcoming an implementation gap between national strategies, to adapt to climate change and to undertake local adaptations in Kent's communities.

(3) Mr Henderson set out the background to climate adaptation and mitigation. He said that climate change was occurring as evidenced by intense heat waves and flooding. Global temperatures had risen significantly over the previous 100 years, with the last 15 years being the hottest on record. The usual approach to climate change was to seek to mitigate it by reducing its speed and magnitude. This was clearly the most vital activity and was also the thrust of the Paris Accord where global

leaders had committee to reducing temperatures to 1.5 degrees above pre-industrial levels.

(3) Mr Henderson went on to say that the need for adaptation was often ignored. Even if the aims of the Paris Accord were achieved, this would not prevent the cumulative impact of greenhouse gasses on the environment. Mitigation and Adaptation needed to be carried out simultaneously.

(4) Mr Henderson then showed a slide giving data produced by UKCP18. Over the coming years, summers were expected to be hotter and drier. Temperatures were projected to rise by between 2 and 3 degrees by 2040 and 5 to 6 degrees by 2080. Average summer precipitation would reduce by between 20 and 30% by 2040n and 30 to 50% by 2080. Winters were expected to become warmer and wetter with temperatures increasing by 1 to 2 degrees by 2040 and 3 to 4 degrees by 2080 whilst winter precipitation would rise by between 10 and 20% by 2040 and by 20 to 30% by 2080. These figures were not, however, expected to represent a steady increase as it was predicted that temperature rises would be far more volatile with the projected simply representing the overall rise. Meanwhile sea levels were expected to rise in London by 2m over the next 100 to 200 years even if the low emissions targets were met, which looked unlikely at present.

(5) Mr Henderson then said that given that the effects of climate change were already being felt, and were going to increase, there was a clear need to be proactive in reducing their impacts on the natural environment, communities, and economies. The Interreg 2 Cs Member States (UK, Belgium, France and Netherlands) had developed national adaptation strategies that identified a range of actions with solid evidence bases. It was difficult to translate national priorities into local actions. The local authorities and regional agencies responsible for implementing them, however, faced challenges in engaging planners and decision-makers. There was insufficient understanding of the long-term costs and benefits of adaptation measures, and a lack of relevant tools to support decision-making and funding for perceived “future” investments. This perception meant that people considered climate change to be something that was going to happen rather than that it was happening already. These barriers led to a situation in which there was little appetite for, or ability to deliver local adaptation. The result was an implementation gap between strategy and real, tangible change on the ground. This was an issue that STAR2Cs was seeking to overcome as it aimed to establish how adaptation could be delivered as part of the business planning and decision-making process.

(6) Mr Henderson turned to the project itself. The Partnership had identified different financial, social, technical and eco-system based mechanisms to deliver cost effective climate change adaptation. An adaptation catalyst tool had been developed as an e-tool designed enable planners to weigh up the cost and benefits (including long term benefits of adaptation measures. This helped to overcome the perception that benefits had to be measured in the short term only.

(7) Mr Henderson then showed a slide of bufferblocks which had been developed in Belgium using recycled lightweight concrete materials which absorbed water and were very effective, especially in low-lying areas where they also reduced subsidence. The carbon footprint was far lower than for traditional concrete.

(8) The Dutch partners had developed innovative flood modelling techniques to help better plan for and mitigate the impacts of flooding. Mr Henderson said that climate change technology tended to be seen as predominantly scientific and technical. This ignored the importance of social participation which was fundamental from the outset. Any measures taken needed to take full account of the concerns and interests of the residents.

(9) A guidebook had been developed to help residents to set up climate forums, maximise participation and come to shared understandings of risk. In Flanders, where the rivers were increasingly prone to flooding, a river contract had been set up to enable communities to collectively manage local fluvial flood risk in partnership with local authorities.

(10) Mr Henderson said that STAR2Cs' approach was based on seven principles: Co-Design, Customised, Flexibility, Multi-Functionality, Incrementalism, Integration and Cost Effectiveness. This represented a partnership rather than a top-down method of working where the aim was to provide benefits in addition to those arising from climate change. Each project was tailored to its specific location, ensuring that further adaptations could be added to the project events turned out differently from what had been predicted.

(10) Mr Henderson continued that there had been two preparatory pieces of work which had needed to be carried out in order to understand the risks and opportunities from climate change. Consequently, KCC, supported by JBA Consultants had carried out significant research and wide stakeholder engagement with 120 key stakeholders, publishing the results of the climate risk assessment in late 2020. The assessment highlighted the environmental changes that Kent could experience over the next 20-80 years, the potential risks and opportunities these changes posed to Kent's society, economy and environment, and made recommendations for adaptation action.

(11) In Kent, climate change was likely to result in warmer, more wet winters and hotter, drier summers. Extreme weather was expected to become more frequent and intense in a county that was already vulnerable to heavy rainfall, floods, droughts and heatwaves. The priority risks for Kent were therefore Flooding, Storms, Water Stress and High Temperatures. Some of the most significant likely impacts of climate change were loss or reduction of agricultural land, changes to crops, increased overheating in homes and public buildings, habitat loss, flooding of homes and businesses, disruption on the transport networks, and a greater number and variety of plant and animal diseases.

(12) Mr Henderson then said that although climate change presented Kent with many challenges, it was also likely to bring about some important benefits including decreased winter mortality among the elderly, a reduction in energy use during winter, longer growing seasons, opportunities for crop for the agricultural sector, and the potential to boost tourism. Some of Kent's industries are already seeing benefits, such as increasing viticulture across the county and improved conditions for soft fruit production. diversification for the agricultural sector, and the potential to boost tourism. Some of Kent's industries were already seeing benefits, such as increasing viticulture across the county and improved conditions for soft fruit production.

(13) Mr Henderson turned to then described some of the work undertaken following the risk assessment. He said that KCC was also involved in the H20 Partnership which was carrying out three significant pieces of work. The first of these was the Spatial Risk Assessment for water which used GIS techniques to assess and map potential nature-based flood and drought mitigation measures. It would assess the risks to water systems (flooding, contamination, drought) arising from climate change, population growth and land use change across Kent's hydrological catchments.

(14) The Rainwater Harvesting Tool had been developed. Kent had some of the highest concentrations of protected soft fruit production under polytunnels in the UK. The irrigation water needs of these crops were significant and increasing, at the same time as climate change was affecting rainfall patterns and the availability of water resources. During the growing season intense rainfall could see the concentration of rainfall on the polytunnels, leading to flooding and soil erosion as well as the loss of valuable water. The tool aimed to encourage farmers to see the benefits of rainwater harvesting for their own farms, including the savings that could be achieved from not using mains water.

(15) A Water Trading Tool pilot was being run at the Hacklinge Marshes in East Kent and it was hoped to expand this work across other areas in the future. It supported farms across Kent to effectively manage and make best use of available water resources, enabling users with water abstraction licenses to collaborate and examine the potential for improved sharing of water resources to protect the environment. The modelling for this Tool was currently seeking to establish whether a marketing or social sharing mechanism was the best way to promote water sharing.

(16) Mr Henderson then said that the H20 *Cool Towns Project* in Margate combined two elements of adaptation. Thirty trees were being planted in a residential to reduce ambient temperatures by creating shading and also to help absorb heavy rainwater through the pits dug out below them, thereby reducing the flow on hard surfaces. At the same time, buildings which had been erected to cope with the climate of 30 years earlier were being adapted in response to the impacts of climate change. These buildings would be in accordance with the building resilience standards for Kent, incorporating thermal dynamics, heat stress and the maximisation of shading and ventilation to reduce internal temperatures.

(17) Mr Henderson concluded his presentation by saying that the adaptation programme built on work that was already being undertaken in order to build resilience across Kent in response to the changing climate.

(18) Mr Lewis said that many people were against the approach that had been described. He said that the way forward for agriculture was to reduce meat eating, which the agriculture sector would oppose for financial reasons. There were questions too about the willingness of the industrial sector to carry out the necessary measures. Solar panel installation was not taking place at the rate people wanted because many people had neither the means nor the inclination to do so. Tree planting in Thanet was taking place in the context of their destruction as part of the Thanet Parkway scheme. Electrical cars were far more expensive that those that ran on petrol. He asked how Mr Henderson intended to persuade KCC to undertake the adaptation measures at the pace that he clearly would like it to.

(19) Mr Henderson replied that many of the pilot schemes that he had described were small in scale. Certainly, the planting of thirty trees in Margate would not negate the full impact of trees which had been felled. One of the purposes of the Cool Towns Project, for example was to raise public awareness of what could be accomplished on a larger scale. It sought to change perceptions and the way in which people reacted. The pilots were a necessary stage in bringing about the significant action that was needed.

(20) The Chairman said that whilst various people had different views about the pace of adaptation, it was important to recognise that everything Kent County Council did was in the context of the effects of climate change and the need to adapt to its effects.

(21) RESOLVED that Mr Tom Henderson be thanked for his presentation and that its content be noted.

12. Environment Agency and Met Office Alerts and Warnings and KCC severe weather response activity
(Item 9)

(1) Mr Harwood introduced his report by saying that since publication of the agenda papers, the number of Met Office weather warnings set out in paragraph 2.6 had risen to six with four yellow warnings for wind. As a consequence, the figure in Appendix 2 should now read “four” and include the additional date of 6 July. He pointed out that this was a highly unusual time of the year for the Met Office to need to issue such a warning.

(2) Mr Harwood then said that there had been great fluctuations in weather patterns since the Committee had last met. April had seen a mere 8% of its normal rainfall resulting in ponds drying out and causing environmental impacts, particularly on wildlife. May, in contrast had been very wet with 151% of the long term average of rainfall being recorded. Most of this total had fallen on 17 May causing surface water impacts, highways flooding and other emergencies. Drainage capacity had struggled to cope with this cloud burst. Such instances were now becoming far more common than before. June had experienced some 150% of average rainfall, most of which had fallen on or after 22 June. Once again, there had been surface water impacts even in areas where drainage was normally adequate and where permeable paving was usually successful.

(3) Mr Harwood then referred the Committee to paragraph 2.3 of the report. He said that Kent was very reliant on groundwater and the chalk aquifer for its recharge. The spikes of intense rainfall were impacting upon the necessary groundwater recharge. This had implications for the chalk aquifer and agriculture. Although the reservoirs had been well replenished with surface water, groundwater recharge levels had been disappointing. This continued the pattern for groundwater recharge experienced over the previous few years.

(4) Mr Harwood said that significant local issues of surface water flooding had occurred in Hythe and Aylesford with impacts on highways and properties. There had also been a lightning strike on a pumping station in Thanet.

(5) Mr Harwood continued that the Met Office's long term three months summary was suggesting that temperatures would be 35% hotter than average, although the chance of average temperatures was higher at 50%. Very high spring tides were going to occur in November when high levels of storm activity often occurred. If the two coincided, there could be a risk to life and property.

(6) Mr Harwood concluded by referring to Exercise Basilea on 4 November which would be based on a storm surge and coastal flooding scenario. It would test KCC's surface water and fluvial water flooding response capability under the most extreme circumstances.

(7) Mr Thomson said that residents of Hawkhurst experienced a great deal of surface water flooding and that this was largely attributable to inadequate drainage. The Chairman agreed and said that Southern Water often had to cope with Victorian drainage infrastructure. Drainage maintenance was therefore a major priority which was carried out by KCC's Drainage Team led by Earl Bourner. The recent surface water flooding in Hythe had apparently been caused by a fat ball blocking the drains. This drew attention to the need for regular inspection and cleansing *before* the flooding event took place.

(8) RESOLVED that the report be noted.