KENT FLOOD RISK MANAGEMENT COMMITTEE

Tuesday 5th July 2022

2.00 pm

Council Chamber, Sessions House,
County Hall, Maidstone

Kent County Council
kent.gov.uk

AGENDA

KENT FLOOD RISK MANAGEMENT COMMITTEE

Tuesday, 5th July, 2022, at 2.00 pm Ask for: **Matt Dentten**

Council Chamber, Sessions House, County Hall, Maidstone Telephone **03000 414534**

Membership (7)

Conservative (5):	Mr A R Hills (Chairman), Mr N J Collor, Ms M McArthur, Mr A Weatherhead and Ms L Wright
Labour (1):	Mr B H Lewis
Liberal Democrat (1):	Mr M J Sole

UNRESTRICTED ITEMS

(During these items the meeting is likely to be open to the public)

1. Introduction/Webcast announcement

2. Apologies and Substitutes

3. Membership

   To note that Mr Andy Weatherhead has replaced Mrs Lottie Parfitt-Reid as a member of this committee.

4. Declarations of Interest by Members in items on the Agenda

   To receive any declarations of interest made by Members in relation to any matter on the agenda. Members are reminded to specify the agenda item number to which it refers and the nature of the interest being declared.

5. Minutes of the meeting held on 9 March 2022 (Pages 1 - 12)

6. Catchment Management Farming - Presentation by Natural England

7. Drainage and Wastewater Management Plans - Presentation by Southern Water

8. Highways Maintenance Update for Winter 2021/22 - Presentation

9. Introduction to the work of the KCC Sustainable Drainage Team - Presentation

10. Environment Agency and Met Office Alerts and Warnings and KCC severe weather response activity (Pages 13 - 18)

11. Other items which the Chairman decides are Urgent

EXEMPT ITEMS

(At the time of preparing the agenda there were no exempt items. During any such items which may arise the meeting is likely NOT to be open to the public)

Benjamin Watts
General Counsel
03000 416814

Monday, 27 June 2022

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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 Wednesday, 9 March 2022.

PRESENT: Mr A R Hills (Chairman), Ms M McArthur, Mrs L Parfitt-Reid, Mr H Rayner (Substitute for Mr N J Collor), Mr M J Sole, Ms L Wright, Mrs J Blanford (Ashford BC), Mr S McGregor (Sevenoaks DC), Mr H Rogers (Tonbridge and Malling BC), Mr C Mackonochie (KALC) and Mr K Edwards (Kent Fire and Rescue)

ALSO PRESENT: Mr P Cole and Mr D Goff (Collier Street PC)

IN ATTENDANCE: Mr M Tant (Flood and Water Manager), Mr T Harwood (Resilience and Emergency Planning Manager) and Mr A Tait (Democratic Services Officer)

UNRESTRICTED ITEMS

1. Minutes of the meeting on 24 November 2021
(Item 3)

RESOLVED that subject to the correct spelling of the speaker's name in paragraph (16) of Minute 14, the Minutes of the meeting held on 24 November 2021 are correctly recorded and that they be signed by the Chairman.

2. Introduction to the work of the Committee - Presentation by Max Tant - KCC Flood and Water Manager
(Item 4)

(1) Mr Tant gave a presentation. The accompanying slides can be found in the meeting page on the KCC website.

(2) Mr Tant introduced himself as the KCC Flood and Water Manager. He managed the Flood and Water Management Team within the Environment and Waste Directorate. The Team provided the duties in its capacity as the Lead Local Flood Authority (LLFA) for Kent. The LLFAs had been created by the Flood and Water Management Act 2010 which had followed the Pitt Review of the 2007 Floods. These had occurred during the Summer months and had been very extensive throughout the UK.

(3) Mr Tant continued by saying that the Flood and Water Management Team also provided strategic flood risk management advice on water resources, promoted water efficiency and advised on water quality.

(4) KCC's role as the Lead Local Flood Authority (LLFA) gave it a strategic overview role for local flooding which arose from surface water, ordinary watercourses and groundwater. Mr Tant explained that a watercourse was simply an area through which water flowed towards a natural endpoint such as the sea - ditches and ponds were not watercourses, and KCC had no powers over them. Some watercourses were designated as main rivers and were the responsibility of the Environment Agency. All other watercourses were described as "ordinary watercourses."

(5) Mr Tant turned to the LLFA's powers and duties. It had to prepare a local flood risk management strategy, the third version of which was due to come into force in the next two years. The LLFA also had to undertake "section 19 investigations" into floods in the county. This could potentially be for any flood, although the LLFA would not normally duplicate the work of another agency, such as the EA, in this regard. The LLFA maintained a register of structures and features that had a significant impact on flooding. Since 2015, the LLFA had become a statutory consultee for major planning applications (involving 10 or more homes or 1000m^2 of office space). It also had powers to regulate normal flows in land drainage for ordinary watercourses that were not in the jurisdiction of one of the five IDBs in the county. The LLFA also worked collaboratively with other risk management authorities in Kent.

(6) Mr Tant defined surface water flooding as that which arose directly from rainfall. Flooding could occur if rainfall fell heavily on the land, overwhelming the capacity of local drainage to cope with it. Once this surface water entered any type of drainage system (such as a river or sewer), it ceased to be legally classed as such. Surface water flooding typically occurred following intense rainfall in the summer. The last four years had seen some 100 flooding events each summer. The winter months could also see significant flooding events in ordinary watercourses, usually as a result of the ground already being saturated when the rainfall occurred.

(7) Mr Tant said that he was often asked which areas were susceptible to flooding. The answer was "everywhere." Floods were often experienced in unexpected areas. For example, in 2021 Ulcombe had been flooded despite being located high up the Greensand Ridge. A few years earlier, Vigo in West Kent had flooded despite being in a heavily wooded area at the top of a hill. Although flooding typically occurred in low-lying areas, this could take the form of the lowest point such as a dip in a road even when the town or village was otherwise on higher ground. Urban areas tended to be more susceptible because of the concentration of properties and related hardstanding or drainage. The EA's mapping estimated that Kent had 22,000 properties at risk of surface water flooding. Only Essex had a comparable number.

(8) Mr Tant used a map of flood enquiry locations to demonstrate that (although there were concentrations in urban areas) flooding took place all over Kent.

(9) Mr Tant went on to discuss KCC's role as a statutory consultee for major planning applications. He said that the provision in the Flood and Water Management Act making the LLFA responsible for approving and adopting sustainable drainage had never been commenced. The statutory consultee role had been set up as an alternative as it enabled comment on the surface provisions proposed as part of the development. KCC received some 150 consultations per month, at all stages of planning, outline and detailed. Mr Tant stressed that the role of the LLFA was to provide comments to the local planning authority which had the responsibility for the determination of the application as well as for any enforcement action. The LLFA used its consultation role to promote the use of sustainable drainage. This was reinforced by documentation on the KCC website. The LLFA preferred green, open solutions, but sometimes had to settle for engineered solutions if they complied with the Government's non-statutory technical standards.

(10) Mr Tant then said that although the LLFA had powers to undertake Flood Risk Management, it did not have an actual duty to do so. KCC's approach was driven by the local strategy and the Section 19 Investigations, which enabled the carrying out of measures that were considered necessary. These included retrofitting SuDS, natural flood management and property flood resilience (which focussed on the prevention of damage to properties by stopping the flood water entering). The greatest difficulty in undertaking retrofitting or natural flood management projects was that of identifying land which could be appropriately developed without constraints.

(11) An example of retrofitting was at George Park in the Margate area. This project had been the first project shown to Lord Deben, the Chair of the Committee for Climate Change on the day before the meeting. The project disconnected surface water drainage from the sewer by allowing it to drain naturally in the park where the chalky ground was sufficiently permeable. The project had also provided tree planting, ponds, pollinator habitat and amenity benefits by improving the landscaping to make it a more interesting feature for local residents.

(12) Mr Tant said that the project in Downs Road, Folkestone had seen the problem of impermeable soil overcome by the installation of rain gardens at the side of the road, enabling the water to fill up the voids beneath them. From there, the water flowed more slowly into the sewer. This had the effect of reducing the threat of sewer flooding. As at George Park, habitat and amenity benefits had also accrued. This was important because the people who lived in the neighbourhood of the project were not affected by flooding but were able to enjoy its benefits without regarding the scheme as an inconvenience.

(13) Mr Tant briefly identified projects currently underway. These included the retrofitting of SuDS at St Katherine's Primary School in Snodland which had flooded extensively in 2019, causing children to have to move to other schools for their education. The scheme involved capturing the water and directing it to a pond. The project involved a planting scheme which had been developed with the School. Nine Section 19 Investigations were also underway. Options were being explored resulting out of investigatory work.

(14) Mr Tant concluded his presentation by describing some of the collaborative undertaken by the Flood and Water Management Team. This included work with Southern Water on the Storm Overflow Task Force as well as support for the EA's work on flooding from the main rivers and the coast. KCC was contributing £2.5m to the expansion of the Leigh Flood Storage Area in order to reduce flooding in the River Medway catchment.

(15) Ms Wright referred to the "Monkey Puzzle" Tree at George Park. She said that concern had been expressed at a recent Parish Council meeting that its roots would over time become as complicated as the tree itself and that this could impact upon the nearby pavement. Mr Tant replied that the tree had been planted before the project began by a local charity and that KCC was not responsible for it. The land was managed by Thanet DC and this concern should be taken up with them. KCC had worked in partnership with the tree-planting organisation and both sides had taken their partners' wishes and intentions into account.

(16) Ms Wright then said that the parish of Monckton experienced problems with flooding as the pump had died. One resident had experienced her entire front garden being flooded with sewage. Mr Tant replied that the resident needed to raise this matter with the sewage undertaker.

(17) Mr Cole thanked the Flood and Water Management Team for its work in Swanley and suggested that events there might merit an in-depth Investigation. He then asked for a definition of the purpose and remit of a Section 19 Investigation. Mr Tant replied that this was set out in two lines in the Flood and Water Management Act which said that the Investigation had to establish which flood risk management authority was responsible and whether it had done what it was able to do. Some LLFAs simply wrote a very short report which simply identified the responsible authority and described what it had done. KCC's reports went into more detail by describing the location and explaining the reason that the flooding had occurred. This would include the level of rainfall, the local land and infrastructure, as well as its ability to cope with the conditions that had arisen. The report would also contain recommendations – although these would not be based on modelling. The reports were published on the KCC website.

(18) Mrs Blandford asked whether Kent was experiencing more heavy downpours in recent years than had previously been the case. Mr Tant replied that, whilst he could not give a definitive answer, it certainly seemed to be the case. Nearly every summer since 2014 had seen very heavy rainfall in the county. It was possible that the reason that summer rainfall appeared to be heavier than before was because it was now being monitored, which had not taken place before 2010. He did not personally agree that this was the case but was unable to provide data to prove that it was not.

(19) Mr Tant then said that housing development should no longer be a cause of flooding as each new development was supposed to include a workable proposal for sustainable drainage. It was the LLFA's role to ensure that major planning applications did so. KCC as planning authority had the responsibility to ensure that the scheme was actually implemented. The vast majority of developers built in the sustainable drainage measures they had applied for. The problem of runoff typically

occurred in developments that had taken place before the late 1990s when the there had been no requirement to prevent it.

(20) Mr Tant continued by saying that flooding problems often arose from developments that the LLFA was not consulted upon. These included the paving of driveways, patios, small extensions and conservatories. Taken together, these small developments had a significant impact, particularly in urban areas.

(21) Mr Rogers said that Medway IDB (which he chaired) was digitalising its register of structures and features. This had been expanded to include access routes and potential hazards. He offered to share this data with KCC.

(22) Mr Mackonochie said that more councils were carrying out Neighbourhood Development Plans (NDPs). He asked whether they could help in respect of the smaller developments, and whether there was any literature that could be disseminated to District and Parish Councils in respect of potential flood risk arising from them. Mr Tant replied that the Flood and Water Management Team was sometimes consulted about NDPs. Although it was unlikely that people planning on building a patio would consult their NDP beforehand, these documents had a potential value in enabling a community to identify the sustainable drainage arrangements that it wished to see and which were in keeping with the local landscape character.

(23) RESOLVED that Mr Tant be thanked for his presentation and that its content be noted.

3. Southern Water Pathfinder Scheme - Presentation
(Item 5)

(1) Mr Nick Mills from Southern Water gave a presentation. The slides can be viewed on the KCC website page for this meeting.

(2) Mr Mills began his presentation by saying that the Environment Act, which had the full support of Southern Water and the Water Industry as a whole required demonstrable improvements in the sewerage systems together with progressive reductions in the harm caused by untreated sewage discharges. Customers wanted to see a reduction in the use of Storm Overflows and the rise in global temperatures increased the urgency to address this issue. Currently, far too much surface water was getting into the combined sewers and the intensity (rather than the amount) of summer rainfall had become far worse since the 1970s.

(3) Mr Mills referred to the statement by the CEO of Southern Water on its website, which made clear that the time for action was “now”. The target set by the company was to reduce storm overflows by 80% by 2030. This could only be achieved by looking at the entire water system holistically rather than by focussing purely on “end of pipe” solutions. This would entail establishing stronger partnerships, the prioritisation of sustainable catchment and nature-based solutions.

(4) The aim of the Storm Overflow Task Force, which Mr Mills headed was to demonstrate the principles in 5 pathfinder catchments (3 of which were in Swalecliffe, Margate and Deal) over the next 2 years in order to build a regional plan for implementation between now and 2030 which would take full account of scale, cost, difficulty of delivery and public engagement. It was also vital to maintain high standards of transparency whilst improving the accuracy of the Beachbuoy service and the user experience.

(5) Mr Mills moved on to consider the nature of storm overflows. He said that they could be 95% rainwater. Combined sewer systems were a legacy from the Victorian era when they had been built to resolve health issues such as cholera. They were often overwhelmed during heavy rainfall. Surface water levels needed to be reduced at source in order to mitigate storm overflows and flooding risk. The main sources of surface water were roof and road run off, which needed to be removed or attenuated.

(6) Mr Mills then said that there were three main types of intervention to reduce the risk of flooding and storm overflow use. The first of these was “Upstream source control” (meaning the removal and slowing of the rainwater flow). Examples of this were: rainwater harvesting, permeable paving, green roofs, soakaways (including tree pits), rain gardens (swales) and planters.

(7) The second type of intervention was entitled “System optimisation” (making better use of the existing infrastructure). This involved optimisation (tweaking of connected systems and interfaces), different mechanical and electrical equipment (e.g., pumps), improvements in pumping station and storm tank use and control, and smart network control with increased digitalisation. Mr Mills said that the cost of sensors had decreased which afforded an opportunity to modernise the system. Southern Water was also considering the examples of global leaders in this field such as the USA and the Netherlands.

(8) The third type of intervention was the enlargement of infrastructure by building larger sewers, tanks and treatment works. Although this option could be very effective, Mr Mills said that the first two types of intervention were more sustainable both from an environmental and economic perspective. This was because the enlargement of infrastructure was both carbon and labour intensive and would also entail a commitment to pumping water for the next 50 years.

(9) Mr Mills concluded his presentation by using his slide presentation to demonstrate successful solutions. Smart water butts were capable of emptying themselves before a storm and remaining full during dry periods. Green roofs were particularly for public buildings such as bus stops and fire stations. Tree Pits such as the one in the White City, London enabled water to collect around the tree and sink into the ground, disconnected from the main drainage system. Rain gardens had clear benefits to the community whilst also serving to reduce water overrun. Projects had also taken place to make road surfaces permeable in some areas.

(10) Mr Goff asked what consideration had been given to the storage of flood water in reservoirs. Mr Mills replied that a great deal of work was being undertaken on this possibility. A consultation on this matter was due to be published as the question of

water resources in the South East was one which needed to be addressed. He offered to share links to the consultation with the Committee Members following the meeting.

(11) Mr Sole asked how water companies in countries which did not have access to a coastline dealt with water. Mr Mills replied that in these cases, water would be diverted into a watercourse such as a river or stream. In very rare instances, water could be diverted into one of a series of bore holes.

(12) Miss Wright referred to a recent Monckton Parish Council meeting where representatives from Southern Water had been in attendance. The discussion had revolved around building works where concrete slush had been disposed of through the drains with the consequence that flooding had occurred. She suggested that a hotline could be installed by Southern Water so that residents could rapidly contact the company when they saw incidents of this nature taking place. Mr Mills said that Southern Water had a team made up of former Police Officers who had an educational and, to a lesser extent, an enforcement role for this problem. It was a very common problem for waste such as wet concrete to be inappropriately disposed of in this way. He said that he would consider this suggestion with his colleagues.

(13) RESOLVED that Mr Mills be thanked for his presentation and that its content be noted.

4. Storms Eunice and Franklin - 18th to 21st February 2022
(Item 6)

(1) Mr Harwood introduced the report by saying that summer storms were a growing problem resulting from climate change. The warmer atmosphere led to greater amounts of vapour being released into the atmosphere, building up energy which was then returned to the ground by a storm.

(2) Mr Harwood then said that both Storms Eunice and Franklin had been very significant events. Storm Eunice had been the first-ever Red Severe Weather Warning issued by the Met Office for Southeast England. The early warning received of its approach had been beneficial for both Kent and the UK as a whole.

(3) Mr Harwood continued by saying that the public response to the storms had evidenced a change in behaviour with very few people taking unnecessary risks. This had been supplemented by higher-risk organisations and services responding positively to advice that they too should not put themselves in danger from wind-blown debris resulting from damage to trees. Some had been shut down during the storm. For example, the QEII Bridge at the Dartford Crossing had been closed from 5.00 am on Friday, 18 February. A similar closure had taken place at the Sheppey Bridge and on other parts of the transport network.

(4) Mr Harwood said that some of the most significant damage had been to power infrastructure. Some 71,000 private and commercial premises had been without power. The Utilities had often been unable to intervene because of the danger posed during the main part of the day. Intervention work had resumed very

quickly during the evening as the winds began to dissipate. The telecommunications network had also been badly affected, particularly in the High Weald and Cranbrook. This had resulted in a significant loss of contact with public service staff as well as a threat to business continuity.

(5) Mr Harwood then praised the work of the Utilities. The UK Power Networks had worked very closely with KCC and other partners to identify vulnerable customers and restore power to the most sensitive locations. Likewise, BT had been able to prioritise the restoration of links to respite care centres and other similar facilities.

(6) Mr Harwood said that the loss of power to pumping stations in parts of Kent. This was a matter of concern both at the time and for the future. Fortunately, the two storms had not been wet storms. If they had been, there would very probably have been issues of surface water flooding and of the impact upon wastewater.

(7) The KCC debrief following the storm had taken place on 1 March. This had identified a number of lessons to be learned which would be considered at a multi-agency debrief to be held on 10 March.

(8) Mr Harwood concluded his introduction by saying that Storm Franklin on 21 February had been less intense than Storm Eunice, even though wind speeds of up to 62 mph had been recorded at Manston. Its effect had been to exacerbate the impact of the previous storm which had not at that stage been fully mitigated. Its most significant impact had been to create a storm surge in the North Sea, leading to localised flooding along the North Kent Coast. The Fire and Rescue Service had been called out to rescue people trapped in vehicles and in some commercial premises. The issue that needed to be examined after the event was that no Flood Alert had been given. The first notification had been a Flood Warning, by which time some of the at-risk areas had already been inundated.

(9) The Chairman commended the emergency services for their response to the two storm events. He added that an ever-greater reliance would be placed upon them in the future and that each event would require careful analysis to enable ever-better planning and preparedness. He warned that public complacency was still a matter of concern.

(10) Mr Sole said that he wished to show his appreciation for the excellent work undertaken by KCC Highways, the emergency services and UK Power Networks. He then said that the Storms had brought the issue of the disruption to landlines into focus. Many people without digital communication facilities had found themselves completely cut off during the entire period.

(11) Mrs Parfitt-Reid praised the ability of UK Power Networks to communicate effectively with local residents. She was concerned about the impact of the Storms upon landlines which had been experienced by residents in her constituency. Elderly residents were the most profoundly affected. In order to repair these lines, roads had to be closed in order that cherrypickers could perform the task. This resulted in delays whilst the necessary Order was being processed. She asked

whether there was any possibility of expediting this process in the event of an emergency.

(12) Mr Harwood replied to Mrs Parfitt-Reid's question by saying that one of the issues being considered at the debrief was whether a protocol could be developed to streamline the process of repairing overhead lines (electronic or landlines). BT's Emergency Planning Officer had needed to strictly prioritise the order in which power and telecommunications were restored in the light of vulnerability. If people were experiencing loss of facilities, they should report the matter to the responsible utility. The utility would then work in partnership with partners in the Kent Resilience Forum to prioritise where repairs were most needed.

(13) RESOLVED that the report be noted together with the comments made during debate.

5. Environment Agency and Met Office Alerts and Warnings and KCC severe weather response activity
(Item 7)

(1) Mr Harwood referred to paragraph 2.1 of the report which explained that Kent had experienced an unusually dry November, with only 23% of long-term monthly average rainfall being recorded. December had seen a near average rainfall total, whilst January had also been fairly dry.

(2) Mr Harwood then said that the winter weather conditions could well have a bearing on the spring months as these had also been dry in recent years. If this occurred in 2022, there would be a danger of water levels in aquifers and watercourses not being replenished. Reservoir levels in Kent were, however, stable. Bewl was currently at 79% capacity, which was normal for the time of year. Bough Beech had reached full capacity during the month of January.

(3) Mr Harwood turned to flooding issues since the last meeting. The two main events had been coastal. There had been overtopping of defences in parts of the county, including Denge on 18 February as a result of Storm Eunice. Storm Franklin on 21 February had been accompanied by tidal flooding which had affected the North Kent coast, from Gravesend through to the Isle of Sheppey.

(4) Mr Harwood said that the Met Office three-month outlook summary for February to April indicated that rainfall was likely to be average during this period. High tides were forecast for late March which meant that the risk of flooding would be greatest at this time if stormy weather and/or heavy rainfall were also to occur during that period.

(5) Mr Rayner said that the tidal predictions were lower than in 2021. These predictions were, however, a view of the most likely tide levels based on evidence that was very difficult to analyse. It would be a mistake to treat these predictions as fact. There was also the factor of potential low pressure periods which could impact negatively on the entire prognosis.

(6) RESOLVED that the warnings received since the last meeting of the Committee be noted.

6. Update on Little Venice Country Park and Marina

(Item 8)

(1) Mr Harwood introduced the report by explaining that Little Venice was a low-lying site containing mobile residential units and was located close to the confluence of the Rivers Beult and Medway. It was consequently at significant at risk of flooding. The most serious recent flooding event had occurred in 2013/14 when the response had included rescue by boat at night.

(2) Mr Harwood continued by saying that the 2013/14 experience at Little Venice had led to work being undertaken with the site operators and other partners (Yalding PC, the EA, Kent Fire and Rescue and Maidstone BC) to enhance the resilience of the site and its community. On site Emergency Plans had been significantly upgraded, as had the engineering methods for the mobile homes. The most significant improvements had related to the precision of warning and informing measures in response to EA Flood Alerts.

(3) Mr Harwood then said that the biggest challenge faced was the historic planning permission which gave little opportunity to the Local Planning Authority to arrange for big changes to the site. The approach adopted had therefore been based on contingency planning.

(4) Mr Harwood said that there had been a number of stakeholder meetings over the past year. These included a meeting held on Monday, 6 December 2021. The notes of this meeting were contained in **Appendix 2** to the report.

(5) Mr Rayner asked how many Flood Wardens had specific responsibility within the Little Venice community. He added that this was important as Little Venice was historically somewhat isolated from the rest of the Parish of Yalding.

(6) Mr Rayner then said that advertisements could still be found in places such as SE London and NW Kent encouraging people to sell their homes and use the money from the sale to purchase a home in Little Venice without being fully aware of the problems which might arise.

(7) Mr Rayner then referred to paragraph 2.9 of **Appendix 1** which was a record of the virtual site meeting on 20 September 2020. This paragraph highlighted the problems faced in evacuating people from the site during the flooding event in March 2020. He said that KCC as the social services authority and Maidstone BC as the housing authority ought to be doing more to restrict the nature of the people who were moving into the site. It was wrong that 16 vulnerable people were living on a site that was one of the most prone to flooding in Kent. The incident described showed the great difficulty with which these people had been evacuated and drew attention to the lack of responsibility of any of the partner agencies to return them to Little Venice after the emergency was over.

(8) Mr Harwood replied that the key point was that Little Venice was a private development and that the residents were private householders. In these circumstances, the most positive approach was to work in partnership with all concerned to achieve the best possible outcome.

(9) Mr Rayner said that he remained concerned that the most vulnerable people had not been moved to areas on site that were at least risk of flooding. Although the site was privately owned, public money was being spent whenever Adult Social Services and others had to intervene. If, at any stage, there was a significant flooding event in which lives were lost, the coroner would need to be informed that he and others had raised the issues on many occasions but that insufficient action had been taken for bureaucratic reasons. A catastrophe was clearly foreseeable, and, given the circumstances, it was unacceptable to read in paragraph 2.15 **of Appendix 1** that: "*If granted, this (*the LDC application*) would lead to a further 40 caravans with the possibility of a further 120 if the planning process were to be repeated."*

(10) Mr Harwood said that the on-site Emergency Plan represented a big step forward. It had been developed with input from all the partner agencies. He added that there were other sites across the county which were vulnerable to frequent flooding, requiring the social care and emergency services to intervene on a regular basis. Work would continue to ensure that the right plans were in place at Little Venice and that they would be constantly improved in content and operation.

(11) Mr Rayner said that he doubted that people who moved onto the site were aware of the risks from flooding when they did so. He had looked at the Little Venice website which did not inform the reader of any such problem.

(12) Mr Rogers said that he had looked at the planning pages on the Maidstone BC website and had read that the LDC application had been refused in December 2021.

(13) Mr Sole asked whether future reports on the Little Venice site could include input from the residents themselves. Mr Harwood replied that there was a residents' group on site whose views could be factored into the Committee's discussions.

(14) RESOLVED that the progress made be noted together with the comments made by Members of the Committee.

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To: Kent Flood Risk Management Committee – 5th July 2022

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

Summary: To update Kent Flood Risk 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 9th March 2022.

1. Background

1.1 This report is the latest of the regular updates to the Committee addressing the current water situation and severe weather and flood response activity.

1.2 The KCC Resilience and Emergency Planning Service Duty Emergency Planning Officer (DEPO) and Contact Point receive Environment Agency (EA) and Met Office alerts and warnings regarding severe weather on a 24/7 basis. Any 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 on to the DEPO and/or Kent Highways. DEPO further initiates multi-agency reporting using the County Council's innovative Severe Weather Impacts System (SWIMS) to capture resources and costs arising from severe weather incidents.

1.3 Some 85,500 residential and commercial addresses across Kent are located within areas identified as at risk from fluvial (river) or tidal (coastal) flooding. Where possible, flood vulnerable properties are offered a Flood Warning Service by the EA. 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 (KRF) Severe Weather Advisory Group (SWAG).

2. Kent water situation and weather statistics

2.1 Kent experienced another unusually dry March and April in 2022[1] following a similar pattern to that established in 2020 and 2021. Just 55% of long-term monthly average rainfall was recorded in March, while April was drier still, receiving just 26% of the monthly average. May saw a slightly above average rainfall total at 109% of monthly average. June was yet another drier than

[1] Please see appendix 5

average month, with just 23% of long-term average rainfall recorded by the 16th of that month (53% would be average by this stage). Mean temperatures between March and May were a little warmer than average, with June a little cooler than average by the16th (using latest available data).

2.2 Environment Agency monitoring indicates that soil moisture deficits continued to increase throughout the first half of May and ended that month above the long-term monthly average across all of the Kent catchments. However, there were slight reductions in the deficits in response to the heavier rainfall experienced in the second half of May, which allowed for some limited recharge. The dry spring saw many ponds and other small wetland features dry-up completely, with resultant negative impacts upon aquatic wildlife reported for the third year.

2.4 Groundwater levels continued to decline across all Kent key indicator locations throughout May. The chalk aquifers in the west were all **below normal**, whereas in the east the situation in the chalk was more varied, ending May between **below normal** and **normal**. The lower greensand aquifer showed a slower decline and remained within the **normal** range.

2.5 Kent reservoir levels continued to decline throughout May. Reservoir capacity was **normal** at Bewl on 81%, **below normal** at Bough Beech at 85% of capacity.

2.6 Monthly mean river flows varied between **notably low** and **normal** across Kent in May, with most of the rivers in the **below normal** range**.** The exceptions to this were the three Environment Agency indicator sites on the Rivers Medway and Darent which were in the **normal** range. The River Medway sites within the **normal** range were being supported by routine reservoir releases, which artificially raised the flows for a period of time during May. The daily mean flows showed only a limited response to the rainfall events in the second half of May. Low flows in some of the smaller local rivers resulted in observed reductions in water quality during spring, with reduced dilution of pollutants triggering algal blooms.

2.7 Partly in response to the negative impacts observed within the natural environment, ‘hands off’ flow constraints were applied to abstractors in the Medway and Upper Stour Catchments in May, while rainfall constraints have also been applied to some groundwater abstractors, as a result of the below average winter recharge. These restrictions will have inevitably impacted agriculture to varying degrees across the county.

2.7 The prevailing dry conditions meant that no flood alerts or warning were issued by the EA since the last meeting of the Committee in March 2022[2]. This contrasts with 11 flood alerts in the corresponding period in 2021.

2.8 The Met Office issued seven weather warnings covering Kent between March and July[3] (one warning for wind, one for snow and ice and five for

[2] Please see appendix 1

thunderstorms)[3]. This contrasts with six Met Office weather warnings (four yellow warnings for wind and two for thunderstorms) in the corresponding period last year.

2.8 The Thames Barrier was closed on three occasions since the last meeting of the Committee in March (all for test purposes)[4]. The figure for the same period last year was four closures (two for flood defence and two for test purposes).

2.9 The most significant flooding experienced in the County since the last meeting was associated with thunderstorms affecting parts of the county overnight on 24/25th May, when isolated surface water flooding and sewerage infrastructure surcharge was reported. A high-profile wastewater surcharge incident in Maidstone town centre is currently under investigation by Southern Water, with a third-party misconnection of surface water drainage into their infrastructure suspected.

3. Outlook

3.1 The Met Office three-month outlook summary covering June to August indicates a 5% chance that this period will be cooler than average, a 55% chance that it will be near average and a 40% chance that it will be warmer than average. In terms of rainfall, the summary indicates a 15% chance the season will be drier than average, 75% chance that it will be near average and a 10% chance it will be wetter than average.

3.2 The EA continuously runs surge forecasts, informed by astronomical tide calculations. If a risk of coastal flooding is forecast, then this information is communicated to partners. However, coastal flooding can still occur outside of high spring tides, as the result of a storm or breach of defences.

3.3 Kent Flood Risk Management Committee will continue to receive regular updates on water resources, flood alerts, weather warnings and response.

4. Recommendations

4.1 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.

[3] Please see appendix 2
[3] Please see appendix 3
[4] Please see appendix 4

5. Contact Details

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Appendix 1: EA Flood Alerts and Warnings issued since 9th March 2022		
Date issued	**Flood Zone**	**Status**
N/A	No EA Flood Alerts or Warnings issued within this period	N/A

Appendix 2: Met Office Severe Weather Warnings by Element – November 2021 to March 2022			
Weather Element	**Number of Warnings**	**No of Different Events**	**Dates covered by Events**
Thunderstorm	5	5	15th - 16th & 18th - 19th May / 4th, 6th, 23rd June
Snow & Ice	1	1	1st April
Wind	1	1	7th April

Appendix 3: Met Office Severe Weather Warnings by Warning Level – March 2022 to July 2022	
Warning Type	**Number of Warnings**
Yellow Warnings	7

Appendix 4: Environment Agency Thames Barrier closures since 9th March 2022		
Thames Barrier closures	**Date**	**Status**
Thames Barrier closed	19/04/22	Test
Thames Barrier closed	19/05/22	Test
Thames Barrier closed	16/06/22	Test

Appendix 5: Met Office Rainfall and Mean Temperature – March 2022 to June 2022		
Month	**Rain**	**Mean Temp**
March	55%	+0.1 C
April	26%	+0.1 C
May	117%	+1.0 C
June (1-20)	23%	-0.3C