

SWIMS Summary 2018



Monitoring the Impacts of Severe Weather

Full Report for 2018

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Introduction

SWIMS is a decision-support tool that can be used by any public service provider in Kent and Medway to capture the impacts of severe weather events on their service and the evidence base collected can be used to better prepare their service for the future. This report summarises the impacts of severe weather on a number of public service providers in Kent and Medway during 2018, from data collected and recorded by services through the Kent Severe Weather Impacts Monitoring System (SWIMS)¹.

Summary of 2018 Costs	
Events Logged	11
Cost to Service	£22,877.54
Impact in Days	148.6
Buildings Affected	487
Staff affected²	86
Calls Received	1060
Residents Affected	1502
Services Recording	14

Table 1 SWIMS Summary 2018

2018 SWIMS Events Overview

During 2018, there were 11 severe weather events logged (2 Low Temperature, 2 Heatwaves and 7 Storms and Gales). Kent experienced an extended period of cold as a result of Storm Emma between the 28th February – 3rd March; the minimum temperature recorded was -14.2°C, 21°C lower than the 7°C average Kent temperature for February. Very low temperatures of -15 to -20 °C in the UK tend to be associated with periods of light winds, clear skies and lying snow cover³. Storm Emma greatly disrupted travel across the county, with many main roads closing, and national rail services were suspended, leaving residents stranded on trains and at train stations.

¹ All data and figures in this report are based on actual and available data collected and recorded through the swims System as of 31st January 2019

² Staff days are based on the average working day of 7.5 hours, week as 5 days and month as 20 days.

³ <https://www.metoffice.gov.uk/climate/uk/interesting/february2018-snow>

Following an exceptionally cold period, the county experienced one of the hottest summers on record, with 2 heatwaves recorded in July and August; during this time the average temperature was 5°C higher than the national average. The maximum temperature recorded was 35.3°C in Faversham on the 26th July. A summary of the events and costs recorded in 2018 is in table 2.

Summary of SWIMS Events logged and recorded costs in 2018		
3 January (Storm Eleanor)	Storms and Gales	£2,000
17 January (Storm Fionn)	Storms and Gales	£0
23 February – 3 March (Storm Emma)	Low Temperature	£10,590.53
4 March	Low Temperature	£6 223.65
29 - 30 April	Storms and Gales	£1,163.36
29 - 30 May	Storms and Gales	£2,900
23 - 28 July	Heatwave	£0
27 - 30 July	Storms and Gales	£0
06 - 08 August	Heatwave	£0
09 - 12 August	Storms and Gales	£0
20 - 24 September (Storm Bronagh)	Storms and Gales	£0
		Total: £22,877.54

Table 2 Summary of events and costs for 2018

Key Impacts

Calls – Kent Police received 858 calls throughout 2018 as a result of severe weather, 580 of these were during the period of Storm Emma. During Storm Emma, Kent County Council’s Emergency Planning Department received over 200 calls regarding a variety of issues and had 331 extra staff hours calculated as a result of the participation of multi-agency response meetings. These meetings included 2 Tactical Coordinating Groups (TCGs) a day, with Category 1 and 2 responders and other partner agencies.

Property - Swale Borough Council experienced a variety of damage to properties throughout 2018, with both Sheppey Leisure Centre and Swallows Leisure Centre experiencing closure of the facilities as a result of roof leaks and burst pipes, respectively. Swale House also experienced leakages in their Members Room. Total repair costs for Swale Borough Council in 2018 was approximately £4,500. During the storms and gales at the end of April, Kent Fire and Rescue Service were called to assist pumping out both commercial and domestic properties. Kent County Council’s Community, Learning and Skills service experienced property damage, across many of their centres in the county as a result of storms and gales throughout the year. This resulted in a variety classes having to be cancelled and postponed indefinitely.

Disruption to Delivery – During Storm Emma, multiple services were disrupted as a result of the snow affecting transport links across the county. Kent County Council and Dover District Council services were affected, but due to flexible working policies employees were able to work on their laptops from home. Kent County Council Emergency Planning Service ensured that 4x4s were deployed to enable essential workers to reach vulnerable residents across the county.

Public Transport - During the 23-28 July heatwave, the Eurotunnel Shuttles experienced air conditioning unit failures, which resulted in large tailbacks on the coast bound M20 carriageway. Dover District Council deployed the British Red Cross to supply stranded passengers with water and advise how they could avoid heat exhaustion. As a result of the delays, the town of Dover

experienced gridlock on 28 July due to the heavy influx of traffic, causing buses to be suspended, delayed or cancelled.

Utilities – As a result of sudden thawing after Storm Emma, there were local outages of water affecting thousands of residents across the county as well as schools and hospitals. 9946 Southern Water customers⁴ were affected, resulting in cuts to water supply for residents and businesses ranging from 4 hours to 3 days. The Kent County Council Emergency Centre managed the tactical emergency management of co-ordinating the distribution of water to residents, at a calculated cost of £3,971.65. As a result of the Freeze/Thaw event following Storm Emma, Ofwat issued a review⁵ of water companies response to the event, to ensure lessons were learned and changes to improve resilience were made. This report has been followed up with open responses from water companies across the country; Southern Water discussed its response at the 2018 Kent Resilience Forum Winter Preparedness Conference.

Customer Service – As a result of Storm Emma, Kent County Council's Coroner's Service staff were unable to work effectively due to a pre-existing fault with voicemail services; as well as an inadequacy of the A2K network. Staff were unable to work effectively remotely during Storm Emma until ICT increased the capacity. This meant that staff working from home were unable to deal with calls for the service.

Known Financial Costs

Severe weather events during 2018 saw financial impacts on Kent's services totalling £22,877.54⁶ reported through SWIMS. Documented costs incurred by SWIMS users included:

- Kent County Council Emergency Planning department incurred £14,562.18 of costs, for additional staff hours ensuring that Kent's vulnerable residents were reached and those without water were provided for during the cold snap between 23rd February and 4th March;
- Swale Borough Council incurred £2,000 for the repairs on major roof leaks at Sheppey Leisure Centre at the beginning of January. They incurred a further £1,000 after Storm Emma for remedial works to the roof of Swale House and burst water pipes;
- The Kent County Council waste management facility in Dartford Heath incurred costs of £1,700 for the clearance of flood water following storms and gales at the end of May.

It is important to note that the financial costs of the severe weather events in 2018 are significantly underestimated, especially with the inclusion of the effects of Storm Emma at the end of February/beginning of March. Of the 146 services registered on the system, only 14 services recorded impacts across the year. The estimated costs of Storm Emma on the Highways, Transportation and Waste (HTW) division of Kent County Council is approximately £5,000,000. HTW spent in the region of £1,000,000 on the response to the freeze event and predicted a further £4,000,000 to be spent on the consequences to follow such as road and footway repairs. These costs were not reported on SWIMS but were submitted to the Kent County Council Emergency Centre.

⁴ Southernwater.co.uk. (2019). Freeze Thaw Action Plan and response to Ofwat. [online] Available at: <https://www.southernwater.co.uk/media/1976/freeze-thaw-action-plan-report-and-response-to-ofwat.pdf> [Accessed 1 Feb. 2019]

⁵ Ofwat.gov.uk. (2019). Out in the cold: Water companies' response to the 'Beast from the East'. [online] Available at: <https://www.ofwat.gov.uk/wp-content/uploads/2018/06/Thaw-report-FINAL.pdf> [Accessed 1 Feb. 2019].

⁶ All figures reported are based on available data recorded on the system as of 4th February 2019

Reputational Impacts

Both positive and negative reputational impacts were recorded in 2018. These are summarised below. Overall, there were more positive reputational impacts recorded on SWIMS than there were negative.

Negative Reputational Impacts

- Kent County Council's Waste Management and Community Learning and Skills services reported that they were unable to maintain normal service delivery during some periods, as a result of flooding throughout the year.

Positive Reputational Impacts

- Throughout Storm Emma, Kent County Council and its category one responder partners (Kent Police and Kent Fire and Rescue Service) received a positive response to their social media updates and use of the '#kentsnow' hashtag with 1.8 million contacts made throughout the freeze/thaw period. The social media updates and contacts were used to inform members of the public of traffic improvement, and to assist members of the public with a variety of issues relating to the snow.
- During the thaw event following Storm Emma, Kent County Council was praised for its response in the distribution of water to residents who experienced water outages.
- Kent Community Warden Service received praise for its work with vulnerable residents throughout the period of Storm Emma.

Key Responses

Along with their impacts, SWIMS users also recorded how they responded to the severe weather events. A summary of these responses is below.

Development of Plans and Strategies - As a result of Storm Emma and the Kent Community Warden Service having to deploy staff members elsewhere from their usual duties, the service will develop a poor weather deployment flowchart to add to their business continuity plan.

Repairs and Maintenance – Gravesend Adult Education Centre experienced issues with leaks throughout the building, leading to rooms and corridors closing. Maidstone Adult Education Centre experienced damage to the roof and the ceiling in the building. This led to plaster falling through a suspended ceiling. As well as repairs to the roof, the carpet in affected rooms needed replacing and the walls required plastering and painting.

Activate Current Policy – Swale Borough Council Economy and Community Services activated their current policies and their staff worked from home during Storm Emma as a result of not being able to travel into the office.

Key Considerations for the future based on current SWIMS Data

From the data collected and recorded in SWIMS from the events of 2018, there are several considerations for SWIMS users to increase their resilience to severe weather.

Data gaps: There are continued data gaps in the information entered onto the system. In particular, financial information should be captured by all services to improve the evidence base to support future planning and budgeting for severe weather, as well as supporting funding or reimbursement claims. Following a data review in 2018, it is advised that 'No Direct Impact' incidents should be amended to include a description of why this was the case - because of the services business continuity planning/resilience planning, or if they were not impacted because their service was not in the area. For more information on completing data entry comprehensively please contact the SWIMS team.

Critical Infrastructure: A need to review critical infrastructure (property) which, if left vulnerable, can affect a wide variety of services and service users for varying degrees of time. Kent County Council properties continue to cost the Council a large sum of money to repair and there is a need to review the resilience of these buildings to future proof them against more frequent severe weather events e.g. more regular maintenance of drains/guttering, replacement or strengthening of property infrastructure.

Messaging: The public messaging via different channels highlighted by several services demonstrates the positive effects that proactive communications can have in safeguarding residents and customers. Collaborative working between services should be increased to ensure messages are reaching the people who need it most.

Health: Services should capture impacts on the health and wellbeing of staff and residents.