



Monitoring the impacts of

severe weather

SWIMS Event Summary Report for Kent & Medway

Annual Report for 2015

Executive Summary

Improvement and Efficiency
South East



1. Introduction to this report

This report summarises the impacts of severe weather on public service providers in Kent and Medway during the 2015 calendar year. It summarises some of the key data and information collected by services through the [Kent Severe Weather Impacts Monitoring System \(SWIMS\)](#).

2. Overview of the weather

Across 2015, four severe weather events were logged on SWIMS (one heatwave and three storms & gales events). These events comprised:

- Storms & Gales (15 January)
- Heatwave (30 June - 4 July)
- Storms & Gales (24 - 26 August)
- Storms & Gales (17 - 18 September)

The highest rainfall intensity recorded by the Met Office was at Sandhurst in Kent, where 29.4 mm of rain fell within a 24-hour period on 14 – 15 January; whilst the wettest hour occurred during the August storms where 13mm fell in just one hour at Frittenden in Kent. The hottest day of the year in Kent was recorded during the heatwave where air temperature averaged 34.7°C over a 12-hour period on 1 July. During the storms and gales at the end of the year, wind speeds reached 59.9 mph at Manston in Kent on 17 November.

3. Key Impacts

Compared to previous years (since SWIMS went live in 2012), the 2015 calendar year had a relatively low impact on services. The calmer winter conditions led to less disruption for most services, however some impacts were felt across the year:

- **Calls:** Kent Police dealt with 51 calls related to minor flooding and obstructions to the highways from debris.
- **Health:** stifling hot conditions during the July heatwave affected 25 planning staff in Swale Borough Council and a number of staff in Educations & Young People's Services (EYP) in Kent County Council (KCC). KCC Kent Community Warden staff responded to ongoing welfare issues linked to Operation Stack on the M20 motorway, delivering water and food to drivers stuck in queues in the very hot weather.
- **Properties:** surface water flooding in August affected at least 10 commercial properties in Tunbridge Wells town centre. The flooding also damaged ceilings and several rooms in Dover Adult Education Centre, affecting 29 staff across KCC.
- **Transport:** all ferries ran with delays during the November storms at the Port of Dover. A fallen tree at Shoreham blocked the railway line between Swanley & Sevenoaks, and Swanley & Borough Green for 3 hours.

Fig.1: Annual statistics

Cost to services (£)	3,527
Cumulative impact on services (in days)¹	60.29
Properties/land affected	14
Calls received	53
Staff affected	130
Service users/ residents affected	42
Services recording impacts through SWIMS¹	27

¹ Staff days based on the average working day of 7.5 hours, week as 5 days, and month as 20 days.

4. Key Costs (£)

Compared to previous years² the financial hit on services in 2015 was far lower with costs to services totalling £3,527³ (see figure 2). The most costly event (and cost to an individual service overall) was the July heatwave where staff responses to welfare issues during Operation Stack cost KCC's Kent Community Warden Service £2,300. The January storms also proved costly, with the high winds causing £600 damage to a roof in Shepway, whilst the time spent on dealing with the stormy conditions cost KCC's Emergency Planning Service £528.

Figure 2: Total Event Costs (£)

Storms & Gales (January)	1,128
Heatwave (June-July)	2,300
Storms & Gales (August)	0
Storms & Gales (November)	99.99

However, the financial costs of these events is likely to be underestimated, with only 3 of the 17 services affected across the year recording financial figures through SWIMS.

4. Reputation impacts

- **The positives:** the EA utilised local media to inform the public to be prepared for stormy conditions in January. In July, the KCC Kent Keep Cool campaign, and Health and Social Care Heat Health Watch programme was effective for promoting health warnings. In November, Network Rail reopened the railway quickly following rail disruption from a fallen tree.
- **The negatives:** despite the many positives, the storm damage from events in August and September caused some negative press – highlighting huge traffic problems around the Port of Dover; and complaints from residents on the limited use of Dover Discovery Centre due to water ingress in August.

5. Key Responses

- **Repairs and maintenance:** several services made repairs to property following storm damage. In Shepway District Council, repairs to offices damaged by high winds cost £600, whilst KCC property services implemented several measures in an attempt to relieve water ingress at Dover Discovery Centre, including clearing guttering and downpipe blockages.
- **Activating current policy:** during the heatwave in July, KCC's Families and Social Care Service implemented its 'Heat Health Watch' policy, delivered actions within the Heat Wave Plan for England, and implemented the KCC System Resilience, in order to effectively monitor and manage health risks.
- **Staff diversions:** several services diverted staff to deal with the storms across the year. In September Port Police and security staff were deployed to traffic management duties at the Eastern Docks and A20 roundabouts. In Shepway, district council ground maintenance staff were diverted to deal with fallen trees across the district.
- **Service suspensions:** the water damage at Dover Discovery Centre in August restricted the use of adult education services for 5 days.

Fig. 3: Impact Hotspots

- Dover district and Tunbridge Wells borough were affected by all events throughout the year.

² For summaries of the impacts on services from severe weather in 2012, 2013 and 2014, please read the summary reports on the SWIMS web page: www.kent.gov.uk/SWIMS.

³ This accounts for actual costs incurred, based on available data as of 01/02/2016.

5.1 Preparing for the long term

Several services built on the learning from these events to prepare for future severe weather risks:

- **Repairs and maintenance:** due to ongoing issues with Dover Discovery Centre, a feasibility assessment has been undertaken to select the best methods for improving the resilience of the building. As a minimum this will include replacing the roof and drainage system.
- **Research:** KCC's Education and Young People's Services (EYP) are working with the KCC 'New Ways of Working Programme' team to seek a long-term resolution to excessive temperatures experienced within Kroner House, in Ashford. This will be a highly-effective solution for combatting the health impacts of heat on KCC staff and customers.

6. Key considerations for the future, based on SWIMS

The main consideration highlighted by the evidence base over the year is the 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. A review/audit by public sector estate managers or property managers may be a useful exercise for identifying any vulnerabilities and implementing low costs or no cost solutions to prepare properties for severe weather events e.g. from more regular maintenance regimes of drains/guttering, to replacing or strengthening property infrastructure.

The public messaging highlighted by several services also demonstrates the positive effects that proactive communications can have, in safeguarding residents and customers.

6.1 Recommended actions to improve SWIMS as a decision-support tool:

1. **Data gaps:** impacted services that did not enter data on SWIMS should do so to ensure a complete picture can be acquired. 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 claims.

Acknowledgements

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Contact Us

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References

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- ⁱ Services within the following organisations recorded their impacts and responses (or confirmed no impact on service) through SWIMS: Dover DC (1 service coordinating for several); Dover Harbour Board (1 service); EA (1 service); Highways Agency (1 service); KCC (10 services); Kent Police (1 service); KFRS (1 service coordinating for several); Network Rail (1 service); NHS (1 service); Shepway DC (2 services); Swale BC (6 services).