Recommendations from the multiagency Stannington, Malin Bridge & Hillsborough gas outage response

What happened?

During the first weekend in December 2022, a burst water main flooded local gas pipes in Stannington, Malin Bridge and Hillsborough in Sheffield.

Despite the speed of the response to isolate the water mains and shut off the water, the topography of the affected area meant the water had already travelled a significant distance due to gravity.



The incident affected in excess of 3,300 homes, leaving them without gas or experiencing poor gas pressure. This left many homes and businesses without heating or hot water for some or all of the 13 days of the incident.

Some properties experienced water coming out of their gas meters and cookers, resulting in water damage to properties.

The incident happened during one of the coldest periods of the winter, with temperatures at or below zero, and a Level 3 Cold Weather Warning in place (indicating a probability of severe cold weather, ice and snow conditions, potentially increasing risk to people's health and wider disruption).

The incident was declared a "Major Incident" by Sheffield City Council, and local partners came together within the South Yorkshire Local Resilience Forum (LRF) partnership structure to coordinate the multiagency response to the incident and support the local community.

For more information on the role of LRFs, please see the national reference document "The role of Local Resilience Forums".

What is this report?

After any multiagency response to a major incident, responding partners come together to debrief the response arrangements. This report focuses solely on the outcomes from the debrief of the multiagency response to the major incident.

This report does not explore the reasons for the incident, or consider prevention of similar future incidents.

Who was involved in the multiagency response?



The main responding multiagency partners to the incident were:

- Cadent the local gas infrastructure operator
- Yorkshire Water
- Sheffield City Council
- South Yorkshire Police
- South Yorkshire Fire & Rescue
- Northern Powergrid

How was the incident resolved?

Gas supplies isolated	Over a million cubic litres of water pumped out of gas pipes	Purge and relight boilers after switching gas back on
OFGEM: unprecedented incident due to the scale and spread	Cadent Gas deployed staff and set up a customer care point	Sheffield City Council, Yorkshire Water, Cadent, and British Red Cross supported vulnerable residents
Customers overpowered the electricity network through switching from gas to heat their homes. Northern Powergrid brought in food vans to help residents have hot food and balance the electricity network at peak times	Affected properties started at 2,000 but soon escalated to over 3,300 as water spread through the network	Compensation payments were set up by Yorkshire Water and Cadent

Yorkshire Water isolated the main and stopped further water ingress within three hours. Following this, gas supplies to every property had to be isolated manually, and then over a million cubic litres of water had to be pumped out of the gas pipes from Stannington to Hillsborough, which is over four miles from one end to the other and over hilly terrain. Each property then had to be revisited to purge and relight

boilers and switch the gas back on. Some properties continued to have sporadic connection issues after reconnection as water continued to move through the gas network.

Cadent deployed staff from across the country into Sheffield to restore gas to the network, and Cadent also set up a Customer Care Centre supported by Council Officers at Lomas Hall in Stannington. Sheffield City Council, Yorkshire Water, and Cadent were on the ground supporting residents.

A range of multiagency support was provided to residents, including a Customer Care Centre, an offer of alternative accommodation through Cadent and Sheffield City Council (although only a small number of residents took this offer up), hot food vans provided by Northern Powergrid, electric heaters and hot plates, blankets and thermals, a list of warm spaces available, a list of locations offering hot showers, and door to door welfare checks.

Forge Valley School

Wood Lane Sheffield S6 5HG

- •Hot shower & changing facilities
- Warm breakout spaceHot/Cold food and drinks

Sat 10 Dec: 8.30am to

3.30pm

Sun 11 Dec: 8.30am to

3.30pm

Hillsborough Leisure Centre

Beulah Road Sheffield S6 2AN

Showers, cafes and foyers open for people to sit, with heating, access to water and free Wi-Fi.

Monday- Friday 5:30am – 9:30pm Saturday – Sunday 8am – 6pm

Identifying vulnerable residents was important during the incident, with vulnerabilities increasing with incident duration. During the incident a range of vulnerability data was accessed and pooled to help identify those residents who might need additional support. Sources included Cadent, Yorkshire Water, and Northern Powergrid's Priority Services Registers (PSRs), Sheffield City Council databases such as those people holding blue badges, those requiring assisted bin collections, and those receiving adult social care support. Healthcare needs data from the hospital was also checked.



Cadent, Yorkshire Water, and Sheffield City Council went door to door specifically to check on vulnerable residents, and wider door knocking took place of every property to ensure nobody was missed.

During the incident the responding partners developed a standard set of questions that every partner who was door knocking would ask to assess and support vulnerability.

A message for our customers in Stannington

We'd like to say a big thank you to residents in Stannington and surrounding areas who have supported us by helping to reduce load on the power network, either by having a meal from one of our catering vehicles or by staggering the use of high-demand electrical appliances.

We've served more than 14,000 meals while our vehicles have been on site.

Sheffield City Council will be supporting local residents this evening by resourcing catering facilities.

Our teams will continue to closely monitor our network in the area.



Customers naturally switched to electricity to heat their homes, so Northern Powergrid deployed monitoring of the electricity network to ensure it was not overloaded.

Northern Powergrid also deployed their food vans to provide hot food and drinks.

Multiagency coordination of the incident stood down on Friday 16 December 2022 after the last property that could be accessed was reconnected to gas, and this was when the Major Incident was also stood down. There was still a small number that were vacant, or otherwise empty (holidays etc) that were left calling cards for Cadent to revisit and reconnect.

Following the incident, Cadent paid double the usual daily compensation rate to households off gas and businesses. Regardless of how many days they were off gas, this was an automatic payment for a minimum of seven days. For water damage and additional costs incurred, Yorkshire Water paid £60 exceptional compensation to all customers affected to cover the cost of extra electricity usage during the period, and also assessed any additional claims for internal water damage or other costs incurred.

Ofgem described this as an unprecedented incident due to the scale and spread. The incident led to an exceedingly challenging, technical and complex response for Cadent. Water does occasionally get into a gas main, but water ingress had not previously been seen by Cadent on this scale.



What aspects of the multiagency response went particularly well?

- There was a rapid initial response to the incident, with rapid multiagency coordination on the ground.
- The responding agencies declared a Major Incident and brought together the multiagency response at the strategic, tactical, and operational levels of command through activation of the Local Resilience Forum (LRF) response structures.
- There was good multiagency communication, and strong relationships between responders.
- Multiagencies shared information through a Multi Agency Information Cell (MAIC) to help to identify and support vulnerable people. Blanket door knocking was implemented to make sure that responders had checked on every household.
- The "technical response" to incident resolution was effective. Cadent were the
 only agency who could put the technical fixes in place and lead the repairs to the
 gas network. This work was facilitated by Yorkshire Water, who provided dig
 teams to create access to the gas network, and also provided gas safe engineers
 (supported by Sheffield City Council engineers) and water tankers.
- Cadent rapidly developed a dedicated page on their website which was
 populated with regular updates multiagency partners were able to amplify this
 page in their own public communications. A coordinated multiagency media
 briefing was organised. Elected members and MPs were supportive in
 communicating with residents and tenants.
- Cadent paid double the usual daily compensation rate to households off gas and businesses. Cadent went beyond their statutory requirements and also provided resolution of internal gas pipework, and support with appliances. For water damage and additional costs incurred, Yorkshire Water paid £60 exceptional compensation.
- After the Major Incident was stood down following gas restoration, recovery was coordinated though a multiagency Recovery Coordinating Group chaired by Sheffield City Council.

What are we going to do to improve our multiagency responses to similar future incidents?

The Local Resilience Forum (LRF) are planning to develop a range of suggested triggers for LRF activation and assessment of incidents, to include reference to this incident.

The LRF will be sharing nationally what has been identified through the Debrief as the good practice of calling a multiagency Strategic Assessment Meeting to consider major incident status and LRF activation requirements.

On-site, responders experienced some IT connectivity issues. In future incidents, support from telecoms companies to boost connectively will be considered.

Lots of different agencies hold information on people who might be vulnerable and need additional support during an incident. Pooling of data through a Multi Agency Information Cell (MAIC) was found to be helpful, and the LRF plans to initiate such a Cell early during future incidents. The LRF also plan to commission multiagency training on information sharing to support the Cell's work. Finally, the LRF is exploring new methodologies for identifying vulnerable people across multi agencies.

This incident demonstrated the importance of consistency between vulnerable persons databases across different responders. This requirement would need to be mandated by government across the differing LRF and responder geographies. National cross sector initiatives across utility infrastructure operators are already underway to start to consider this.

Yorkshire Water were able to provide multiagency support with tankering water away from the incident site. Responders plan to explore the potential for developing a multiagency tankering plan to support any such future incidents.