



Office of Sarah Bentley
Chief Executive Officer

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SENT BY EMAIL

Dear John,

December freeze-thaw

I write in response to your letter of 16 January 2023 regarding our preparations and response to the December freeze-thaw event.

As Ofwat will be aware, the UK experienced a prolonged period of low temperatures between 8 and 17 December 2022. On 12 December, the UK average maximum temperature was zero degrees with the 12 and 13 December the UK's coldest days since 28 February and 1 March 2018 (the 'Beast from the East'). Daily minimum temperatures fell widely to between -5 degrees Celsius and -10 degrees across the UK on several nights. Temperatures then rose significantly, between 17 and 18 December, with increases of over 17 degrees Celsius within 24 hours.

The weather conditions experienced in December 2022 were similar to those experienced in the 'Beast from the East', but we were able to take the learning from the winter event of 2018 to redesign how we respond to major incidents and have successfully put this into practice in this recent event minimising the impact on our customers.

The very cold conditions in December, combined with a rapid increase in temperature and a very quick thaw led to a difficult month operationally, both on our water supply network and on our customers' pipes, during which 2,478 visible leaks were raised, 56% more than the monthly average. 1,600 of these were from our distribution mains (with remaining leaks from communication pipes and other assets), a significant number when compared to the 889 mains leaks in August when soil moisture deficits were at their highest. This compares to a monthly average so far this year of 437, all representing a potential risk to our customer supplies.

However, in terms of risk to customer supply, we recovered quickly from this winter outbreak because of the increased resources we had on the ground and the level of pre-planning we had put in place, in advance of the incident. Our teams were able to prioritise critical system leaks and as a consequence, there were no major customer outages. We had approximately 245 teams focused on leakage and repaired 1,447 mains, a 91% increase on the normal monthly average. This was supported by over 400 specialist detection and technician resources finding and prioritising leaks. The majority of repairs raised in December have now been completed.

The success of this heightened activity, when compared to the impact of the freeze-thaw in 2018, was that customers experienced less than 10% of the supply interruptions experienced in 2018. Overall, I and my Executive team, believe that Thames Water responded exceptionally well to the freeze-thaw event. More information on our preparation for the event, how we managed the customer impact and lessons learnt are set out in the rest of this letter.

Our planning for the event

We started our winter campaign in November providing general advice to customers on preparing for winter and any potential freeze-thaw event. Our operational control centre utilised our modelling tools to monitor and

forecast adverse weather conditions. The risk of a freeze-thaw event was identified in advance and our Gold Command incident preparation was put in place from Sunday 11 December, the week prior to the event, with Executive leadership in place. We enacted a series of preparation plans across our network, customer and logistics functions. Some examples of the steps we took included:

- Proactively increased our resource, in both field and support services, ahead of the event, this included doubling standby and out-of-hour resource across our water network, production and control teams;
- Stood down all planned work, so that all our people could focus on responding to incidents, before they impacted customers;
- Increased the number of event ambassadors to 60, our growing community of event volunteers, who are proud to take ownership during incidents to support our customers and contain any impact. The team were on standby ready to run any bottled water stations as well as deliver water to our vulnerable customers;
- Had 216,000 bottles of water already in our warehouses and a further 2,016,000 (1,008,000 litres) at our supplier;
- Increased resources in our contact centre bringing in 80 additional employees to answer calls;
- Increased tanker availability by 30% from contractors;
- Issued advice to customers on how to avoid leaks by preparing pipes to defrost slowly;
- Proactively engaged with Local Resilience Forums;
- Engaged with our retailers and issued a stakeholder newsletter to all local authorities and relevant agencies ahead of the thaw;
- Utilised third party resource including our contractors to support our operational teams, our call centres and help with customer side issues; and
- Re-prioritised work from areas such as metering and developer services to increase resource availability to deal with leakage and leakage repairs.

This was then supported by an extensive communications campaign including:

- TV and radio interviews, for example the Dom Wood Broadcast media day as part of our winter campaign;
- Our leakage campaign press release to key national, regional and broadcast media in November as well as radio interviews;
- In preparation for the potential freeze-thaw incident we sent out a proactive press release advising customers on tips to protect their pipes ahead of the forecasted thaw and information on what Thames Water is doing to protect the network;
- Engagement through social media on 'ready to weather winter' and how to 'thaw your pipes safely;'
- Engagement with our customers through email (over 2.1 million sent) on 'Hot Tips as the Freeze Thaws' detailing what we were doing and what customers can do if their pipes are frozen;
- Engagement with trade organisations such as the National Farmers Union and National Trust;
- Engagement with customers continued on our web page and our website incident bar. The web team also created the following pages <https://www.thameswater.co.uk/winter-water-saving> and <https://www.thameswater.co.uk/help/home-improvements/prepare-your-home-for-winter>.

Impact of freeze-thaw event on our Customers

There were no major incidents directly related to the freeze-thaw event in December that impacted our customers. The operational incidents that did occur had less than 10% impact on our customers compared to that experienced in the freeze-thaw of 2018. Traditionally in the week before Christmas we have seen lower demand. However, having forecast the freeze-thaw event we made the decision to actively increase both resources and water production and successfully mitigated the risk of the freeze-thaw event causing supply disruption to our customers. However, as a direct consequence of the freeze-thaw we saw a significant spike in leakage throughout December. As a result, and when coupled with the summer drought, we will now miss our leakage target for the year. This is discussed in more detail below.

We strongly believe that the lessons we learnt from "The Beast from the East", the proactive planning and the unquestionable dedication and commitment of our employees to our customers, allowed us to maintain supplies during this period. This also allowed us to support:

- South East Water by delivering 200 pallets of bottled water; and
- Affinity Water by the delivery of bulk water transfer, approximately 20 million litres per day.

During the event we did experience a six-fold increase in contacts to our customer centre. To keep waiting times down we brought in an extra 80 employees from elsewhere in the business to handle leakage and burst enquiries. We updated our website incident bar to keep our customers updated when call volumes were high providing them with alternative ways of contacting us and a link to our approved plumbers in case they were experiencing issues with frozen pipes.

We were also able to protect customers better through the use of live monitoring and our customer impact visualisation system.

Impact on leakage

During last year's drought we increased our resource to find and fix leaks across our region. This extra resource enabled us to manage the freeze-thaw event more effectively. Prior to the thaw we worked to increase and maintain service reservoir storage in our network to help protect customers from interruptions during the expected increase in bursts. We maximised water supply production and maximised storage building effective resilience to meet peak demands of approximately 2,300 MI/d in London and 730 MI/d in the Thames Valley.

The freeze-thaw event resulted in a significant breakout of leakage, peaking at 982.65 MI/d. However, our teams were able to prioritise critical system leaks to avoid major losses of service to customers. As previously mentioned we saw 2,478 visible leaks raised (56% more than monthly average) with 1,600 from mains the majority of which have been repaired.

As a consequence, we are behind on our 2022/23 leakage performance and will not recover our position in time to meet our target for this year. As annual leakage targets are based on a 3-year rolling average, the impact of this year will be felt, not just this year but for the next 2 years' performance. Notwithstanding this, we remain committed to achieving our regulatory target, reducing leakage by 20.5% over the course of this AMP.

In order to get back on track for leakage an updated plan is being developed as a transformation programme spanning across the multiple disciplines involved in overall leakage management. The revised plan is being finalised and will take account of key learnings from the past months where we have experienced a number of rare events, continue to focus and build on the improvements in delivery and productivity that we have put in place whilst also driving some broader transformational changes. We will consider critical enablers to long-term leakage reduction such as our asset health and availability (e.g. DMA operability & availability) and embed broader system thinking and local ownership.

Event at Belsize Road

In addition to the freeze-thaw event in December we did have other operational challenges during that period but not related to the thaw event, for example the incident at Belsize Road, Camden, where more than 100 properties were affected and people evacuated from their homes. We updated the media throughout this event and our Operations Director, Nevil Muncaster held interviews with the BBC and ITV. Our loss adjustors supported those who were flooded, including, providing alternative accommodation.

Lessons learned

As part of our lessons learned from previous events, particularly from the freeze-thaw in 2018, we have made several improvements that address the recommendations set out by Ofwat, in a letter dated June 2018, in the following areas:

- Our planning & preparation;
- Our Incident response;
- Our Stakeholder communication;
- Customer communication;
- Vulnerable customers; and
- Compensation

Our planning and preparation

In 2018 we underpredicted the impact of the cold weather. Since then, we have improved our modelling of weather events and recruited a weather specialist to facilitate early escalation and effective preparation for adverse weather events. In addition, we have put in place an operational control centre team that horizon scan for emerging risks that may impact our customers.

Our emergency response in 2018 was inflexible with escalation of the incident too late and was not sufficiently resourced to mitigate the impact on our customers. We have introduced new Incident Management structures and arrangements to improve the effectiveness of our response and align with first responders (Gold/Silver/Bronze). As outlined above, we identified the risk of adverse weather in advance of the event and stood up our Incident Response a week before the event, on Sunday 11 December. We began to increase our resources across our network and contact centres and put planned work on hold so that resources could be used where they were most effective.

Our incident response

Improvements in our incident response management has enabled us to have a more proactive approach to the incident in December. Putting an incident plan in place a week in advance allowed us to plan more effectively and have resource on standby.

We have also developed real-time digital visualisation tools to provide geospatial incident views which has enabled us to react faster in a more proactive manner. We have improved our website and phone systems to provide easy access to information for customers during events. Alongside this we have increased our proactive campaigns and implemented direct customer communications with household and non-household customers during events. We have increased our engagement and proactive sharing of information both during and preparing for incidents with key stakeholders.

We also ensured we had an immediate supply of bottled water in our warehouses with access to further supplies if required, enhanced our tanker availability and increased our resources to deliver bottled water to our PSR customers.

We were proactively communicating with our customers through multiple media forums including; social, website, radio, email, and text. The messaging was aligned to what we had already issued as part of our Winter Campaign and what we were experiencing in our business-as-usual activities. Our messaging was also sent to retailers and key stakeholders to update them of the impact we had seen, such as increasing leak repairs by 70%.

Stakeholder communication

We have improved our stakeholder communication before and during events and during this incident we proactively engaged with Local Resilience Forums and with trade organisations such as the National Farmers Union and National Trust. We also engaged with our retailers and issued a stakeholder newsletter to all local authorities and relevant agencies ahead of the thaw. We will continue to review our communication effectiveness before, during and after events so that we build on what we have achieved so far.

Customer communication

During the 'Beast from the East', we provided inconsistent information to our customers and struggled with the volume of customer calls. We also relied heavily on social media limiting the number of customers we reached with the communication that we made.

As mentioned earlier in this letter, prior to and during the incident we proactively communicated with our customers through multiple media including; social, website, radio, email, and text. The messaging was aligned to what we had already issued as part of our Winter Campaign. To improve our customer experience, we increased resources in our contact centre bringing in 80 additional employees to answer calls. We did still experience high call volumes with a peak of approximately 8,600 calls on 17 December and we were not able to answer every call as quickly as we would have liked to. We kept our customers informed through our website incident bar and will continue to review how we keep our customers informed to see if any further improvements can be made.

Vulnerable customers

We continue to expand our Priority Services Register and at the end of September we had over 317,000 customers on the register which will increase to 400,000 by 2025. This means we can offer these customers extra support during incidents and emergencies. Before the event we planned increases to our capability to deliver alternate water supplies, particularly to these vulnerable customers, increasing our availability of vehicles and drivers to deliver bottled water.

Compensation

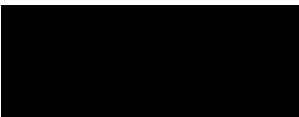
We have improved how we communicate information around compensation payments to our customers. We have reviewed our compensation policy so that it is simple to understand and easy to access for our customers. The policy describes the ways to claim and the amount that customers are entitled to. As the December event had limited impact on our customers there were minimal compensation payments made to our customers.

We are very much aware that we are likely to see an increase in events, both in terms of frequency and impact in the future due to the impact of climate change. Our assets must become more resilient to manage the impact of these events on our customers, both now and into the future. We invested a record £808m in our assets in the first six months of the year delivering improvements and upgrades at sites across our region. We have an extensive capital programme and are spending close to £200m on replacing water mains over the next three years. In addition, the work associated with our London network conditional allowance will also deliver 128kms of mains replacement improving resilience for our customers.

We are continuously assessing the performance of our response during incidents, and subsequently making improvements to our processes and controls. During the second half of the year, we conducted a review of learning themes, collating information both from high profile operational incidents such as Netley Mill and from our wider incident learning process. This produced a holistic view of the key areas that have been most challenging for us during operational incidents over the past few years. These have been built into an improvement program with senior leaders and experts from across Thames Water engaged in owning and delivering actions where they are best placed to do so. While this is a relatively young program marked enhancements to our emergency response capability are already being made; for example, updated Incident Management Arrangements, major investment in additional water tankers to provide alternate water supplies and in the creation of our Customer Incident Response team (a dedicated resource available 365 days per year that improves our ability to resource bottled water stations at short notice during supply interruptions). Operational Incidents by the nature of being an emergency will always be challenging to effectively respond to, but by continuously learning and implementing change we are confident that our response is improving.

I hope that this demonstrates that as a business we have made significant progress to our approach to incident management since the 'Beast from the East' event in 2018. Please let me know if you require any further information.

With very best wishes,



Sarah Bentley
Chief Executive Officer