

Learning from the impacts of the 2018 freeze-thaw

First quarterly update report

Introduction

Water UK published its report on the 2018 freeze-thaw event in September 2018¹. In that report we focused on those areas where collaborative actions could be taken to build on the measures being taken individually by companies as part of their action plans. In the report we proposed eight priority areas that would address preparedness for and response to cold weather events:

- agreeing an industry approach to planning for supply risk associated with extreme weather-related incidents (priority 1);
- improving the arrangements by which companies make provision for alternative water supplies (priorities 2-4);
- improving the robustness of arrangements under which bulk supplies are provided between companies (priority 5);
- improving engagement with affected customers (priority 6);
- sharing insights on the use of big data to understand network performance better (priority 7);
- enhancing customer side resilience (priority 8).

We set ourselves timetables for completing work in each of these areas to ensure work is carried out at a good pace before any future incidents. Of the eight priorities, four were due for completion by the end of December 2018, three are due for completion by the end of March 2019, and one is due to complete in September 2019.

This is the first of our quarterly update reports which we will use to provide transparency about our progress for the duration of the programme.

Assessment of progress

Senior oversight of the areas covered in our report is provided by the industry's Operations Strategy Group (OSG), which was set up by Water UK in September and which includes senior water company operations leaders.

Our assessment is that good progress is being made across all priorities (see Appendix 1 for a summary for each area), but that some areas still need additional focus. Of the priorities due for completion by the end of December 2018:

- we have established a group of industry professionals to develop approaches to supply risk planning (priority 1);
- one innovation exchange on alternative water provision has taken place and a further one will be held in January 2019 (priority 3);

¹ <https://www.water.org.uk/publication/learning-from-the-impacts-of-the-2018-freeze-thaw/>

- Water UK's drinking water PAG has proposed an interim approach to improving the management of bulk supplies by way of an MoU (priority 5).
- progress on addressing priority 7 on big data has been slower than anticipated, as OSG attentions have focussed on managing Brexit risk. However, this will be progressed at the next OSG meeting early 2019.

The deadline for progressing priorities 2 and 4, regarding approaches to providing alternative water supplies (AWS), was March 2019. OSG challenged companies to bring forward work on this issue, due to the criticality in of AWS in incidents. We currently aim to summarise this activity by the end of February 2019. However, many companies have reviewed their alternative supplies contracts and stocks during the heatwave. Stocks generally have been increased, especially in terms of bottled water and storage within companies' regions.

Progress with priority 6 on engagement with NHH retailers has been more challenging. The industry has attempted to progress this through specific workshops and exercises; however, it has become clear that there is limited awareness across the sector of roles and responsibilities.

Addressing this will be a core focus for early 2019. We will engage with NHH retailers and wholesalers to promote full adoption of existing guidance and to identify any further improvements to ways of working. As proposed in our report, we will carry out an exercise in March and bring forward any emerging proposals in our next report.

On priority area 8, as part of Water UK's wider work on per capita consumption of water, we are due in January to commission work on the costs and benefits of supply pipe adoption. This will happen alongside consideration in Water UK's Policy Advisory Groups on the issues associated with supply pipe adoption during the first quarter of 2019. In the meantime, companies are working to support customer prepare for (e.g. free lagging / advice) and respond to (e.g. supply pipe repair schemes) any issues that may arise this winter.

Finally, in our September report, as well as the eight priority areas referred to above, Water UK committed to hold a workshop on winter preparedness, which took place in December. The event was designed to exchange information on the steps being taken to prepare for the coming winter. Companies shared, for example, how they are reaching out to customers with social media and pipe lagging campaigns; how data is being used to assess priority areas of the network; understanding how and when to seek interventions from regulators and government; and improvements being made to incident management processes and resources. Companies committed to return to their organisations and integrate ideas and approaches identified during the workshop.

Ensuring actions are taken

To maintain momentum, we will continue to facilitate opportunities for water companies to meet and share learning and ideas. This will build on the four successful events we held between April and December 2018.

The Operations Strategy Group (OSG) will continue to review progress against the priority areas and, through the production of quarterly reports, ensure that key stakeholders are appraised of developments.

The next quarterly report is due at the end March 2019, when we expect to be able to share the outcomes of the work on AWS and to demonstrate progress on both NHH retail and on using big data.

Appendix 1 – Summary of progress on collaborative priorities

Priority 1: Agreeing an industry approach to planning for supply risk associated with extreme weather-related incidents

A dedicated group under the oversight of the Operations Strategy Group will convene in October 2018 to develop this concept further and propose an appropriate action plan. Deadline: October 2018 to convene group.

Status: Water companies have been discussing their approaches to risk planning bilaterally. As part of the December 2018 event, we held an initial discussion on the impact of the March 2018 freeze-thaw event, and how this had changed companies' approach to risk management. The aims were to share knowledge, best practice, that can subsequently be implemented in the respective organisations, and assess the risk appetite for any other extreme weather events (i.e. freeze-thaw, prolonged drought, etc.), across the industry. The group agreed that it needed to continue to engage with all water companies and have formal face to face workshops on a quarterly basis. The next session is planned for the 18th January 2019 at Severn Trent Centre, in Coventry, to develop its approach further.

Priority 2: Assess the availability of alternative water supplies

The Water UK Security and Emergency Planners Network (SEPN) will review existing arrangements and develop a robust framework to enable the provision of alternative water supplies, including an assessment of wider supply chain ability to provide bottled water during a major incident. By the end of March 2019, the group will assess the adequacy of the total volumes currently accessible by water companies collectively (both directly held and through contracts with bottled water and third-party logistics providers). Deadline: March 2019.

Status: A data gathering exercise has taken place which highlighted some concerns amongst companies about the ability of bottled water provision contracts to manage multiple requests. Several companies are assessing their contractual arrangements and looking to spread the risk across several providers. The concept of a national bottled water bank has support in principle, but questions remain about the operability of such a model. Discussions have taken place with commercial AWS providers and assurances given that some stock levels have been increased. Given the importance of this area (including for how we manage other areas of potential disruption), we plan to publish an update report slightly earlier than planned, by the end of February 2019.

Priority 3: Hold an Innovation Exchange on alternative water supplies

Severn Trent Water will host an innovation event for water companies and suppliers to consider all aspects of alternative water provision, exploring the art of the possible and the scope for the future. This will be carried out jointly with British Water who have an established process of developing and running Innovation Exchanges, by the end of December 2018. Deadline: December 2018.

Status: The first of two events focussed on showcasing and sharing innovative approaches to AWS was held on 20th December 2018 with the Future Water Association. The second event with British Water will take place in January 2019. These events provide opportunities for water suppliers and the supply chain to explore new approaches to addressing the challenges of provision of AWS. The future water Association event has also included two innovative technology scouting exercises.

Priority 4: Review the regulations for the provision of alternative water

Water companies will review the existing regulatory framework by the end of March 2019 and determine where any changes could be made to improve the way companies address alternative water supplies. Following this assessment, Water UK will approach government and regulators to seek their support for any proposed changes to the regulatory framework for alternative water supplies that have been identified. Deadline: March 2019.

Status: A data gathering process (separate to the one mentioned under priority 2) is being concluded to capture the views of companies as to the suitability of current planning thresholds for the supply of alternative water contained within regulation (SEMD). Companies are being asked whether the existing planning thresholds are fit for purpose given changing customer expectations and, if not, what changes should be introduced and how. The outputs from this will be assessed by the SEPN and disseminated at the February meeting and feed into Defra's plans to review SEMD in 2019.

Priority 5: Improving the robustness of arrangements under which bulk supplies are provided between companies

Companies will assess the implications of the risks within bulk supply agreements with regard to both water quantity and quality. The assessment will propose modifications to the framework. An initial assessment will be carried out by end December 2018, initially via the Water UK Drinking Water Policy Advisory Group (PAG). Deadline: December 2018

Status: A working group of the drinking water Policy Advisory Group (DWPAG) has reviewed data on the extent of bulk supplies, the types of agreement in place and the criticality of the supply. Whilst there are several different supply types there are common risks to both the quality and volume of supply. The DWPAG has proposed a template for an MoU between parties to outline expectations for each when managing bulk supplies. This MoU will cover dialogue, expectations and transparency.

Priority 6: Improving engagement with affected customers

We will explore this further, starting at a workshop for water companies and NHH retail organisations hosted by South West Water at the end of November 2018. Water UK will work with water companies and NHH retailers (through MOSL and the UK Water Retail Council) to test the codes and guidance and conduct an exercise to simulate a range of crisis scenarios. This will be completed by March 2019. Deadline: November 2018 / March 2019

Status: Dialogue with NHH retailers through workshops related to both the freeze-thaw and to the dry weather have highlighted a general lack of awareness of roles and responsibilities and of procedures, codes and guidance that exists to support the management of unplanned events. Several workshops over the past 12 months have tried to address this but to date the progress has been limited. For example:

- *In November 2018, South West Water hosted an event for NHH retailer organisations to share the lessons learned on the freeze-thaw. The feeling at the workshop was that there was an overall lack of awareness of the protocols and systems that are already in place to support the management of extreme weather incidents.*
- *In December, Yorkshire Water hosted an exercise with retailers which ratified the findings from the South West Water event. 11 retailers and 5 wholesalers were present. Yorkshire Water will be sharing these learnings with the industry and will be developing a notification and communication procedure for extreme events, proposing that wholesalers adopt this as part of their incident management plans and protocols.*

Water UK and the UK Water Retail Council have agreed to meet first thing in the new year to establish how to overcome barriers to progress. Water UK is also convening a meeting of NHH market experts from wholesalers and retailers in January 2019 to deep-dive into the reasons behind this lack of progress and make proposals for change.

On 'ensuring coordinated communication throughout the event to regulators, Local Resilience Forum (LRF) partners and customers' the SEPN have developed minimum standards for water companies in terms of liaising with LRF's, from planning phase to triggers and incidents. This has been circulated for review and will be published February 2019.

Priority 7: Sharing insights on the use of big data to understand network performance better

December 2018, the Operations Strategy Group will agree a programme of activity to promote sharing of insights and developments in the use of smart networks, covering (among other things) the work of existing Water UK networks, relevant national innovation and big data conferences, and academic research. Deadline: December 2018.

Status: The OSG has undertaken to share examples of where big data is being used in companies to benefit the understanding of the network and its behaviour in extreme weather conditions. At the December workshop on winter preparedness, STW outlined how it had been using big data to develop its approach to system visualisation (a graphic representation of network modelling and diagnostic capability) and work prioritisation. In addition, several companies are working together to demonstrate the use of big data. This will be discussed at the next meeting of the OSG in early 2019.

Priority 8: Enhance customer side resilience

Water UK will work with others to carry out a fuller analysis on the barriers and solutions to addressing customer side leakage. The analysis will inform policy, regulatory and business decisions and be completed by September 2019. Water UK will work with water companies specifically to update our understanding of the policy implications of company supply pipe ownership. Deadline: September 2019.

Status: Water UK are due to commission in January a project to consider the economic costs and benefits of supply pipe adoption (and how this compares with other interventions to reduce water demand) as part of our wider work on per capita consumption. This work will also include stakeholders with an interest in this area. As part of this work there will be an assessment of supply pipe policy that will support our ongoing discussions with Defra and regulators about the potential to review government policy. This will be explored further in the next quarterly report. In parallel, Water UK's policy advisory groups will consider the impact of, barriers to and appetite for supply pipe ownership during the first quarter of 2019.

At the same time as addressing the strategic policy issues associated with customer side resilience companies are also working with customers to increase the ability to identify and remedy leaks on or in properties which it is estimated accounted for over 70% of the additional demand.

- *Companies have improved and maintained the free supply pipe repair schemes or increased their 'find and fix' resource; changed the way they interrogate billing data to proactively identify customer side leakage and carried out enhanced home and business visits from a water efficiency perspective;*
- *Companies have established winter readiness campaigns and support programmes to help customers prepare for (free lagging or tap covers) to advice and information presence on websites and social media.*