## Market view

## Think the unthinkable

The water industry needs to broaden its approach to risk and planning if it is to embrace the challenges and opportunities in the PR19 resilience agenda, says Brendan McAndrew.

The trouble with the resilience agenda is that it can raise nightmare scenarios that we would probably rather not think about. The realm of rare but high impact failures and multiple, long-term threats and pressures is complex and uncertain; it puts a strain on our organisational and intellectual capabilities.

Nevertheless, it is against this backdrop that resilience of water and wastewater services is emerging as a key issue in the PR19 business planning process – underpinned by Ofwat's new statutory duty to promote the resilience objective.

But why is resilience becoming the issue of the moment? Perhaps the answer is that policymakers are becoming concerned at the increasing frequency of highly disruptive events – such as the Fukushima nuclear disaster in Japan or hurricane Katrina in the US, or closer to home the flooding of Mythe water treatment works in 2007, which left 350,000 people without piped water. When things that were once considered unthinkable appear to be becoming commonplace, it may be time for a change.

The UK water industry has become adept at risk-based capital maintenance planning, largely driven by historic asset failure rates, and this will continue to form part of the business planning and capital delivery process. However, it can result in a number of corporate blind spots, particularly relating to systemic failures and high-consequence low-likelihood incidents, which end up being continually kicked further down the road to be dealt with in some future investment period.

Water and wastewater services are delivered by a complex value chain comprising asset systems, catchments, people and processes. It is only when vulnerabilities in each of these areas is understood that we can be sure of how resilient our services really are.

Do our current planning processes reflect this complexity? Do we, for example, proactively seek to identify single points of failure in our water supply and wastewater collection systems, which if they failed would inevitably cause major service impacts even Resistance
Reliability
Infrastructure resilience
resilience
Redundancy
Response & recovery

The components of infrastructure resilience: in building resilience, the contribution made by each of these four components needs to be considered

if there has been no history of such failures? Do we test or challenge the assumption that our contingency plans and emergency response procedures will be effective against such risks?

Prevailing wisdom might be that such rare events would never attract funding in the absence of a history of service failures, and therefore it is not worth considering them. Identifying resilience risks effectively is complicated and takes considerable time and effort involving multiple stakeholders from across the business. If the outcome of the process is a Pandora's Box of currently unaddressed risks, it may be tempting not to embark on the process in the first place.

In reality, though, the leadership teams within water companies want to have full visibility of such risks. Therefore creating the time and space within business planning and operational processes to think the unthinkable is a fundamental step in the process of building organisational and service resilience.

So how might companies change their approach to planning in the run-up to PR19 in order to respond appropriately to the resilience agenda? There are a number of ways to do this:

- Create the processes and forums within your business that enable stakeholders to flag up resilience issues.
- Ensure that such learning is put to use enabling changes in planning and operating processes to follow.

- Encourage staff to think of resilience issues in the way they do health and safety – looking to build the behaviours which will enhance resilience and reduce vulnerability.
- Channel this information to build a complete multi-stakeholder view of the range of pressures and vulnerabilities to which services are exposed.

Companies will be in a strong position to identify strategic resilience objectives and develop effective and sustainable solutions if they establish a company-wide view of common resilience issues and themes in a structured manner.

In the current economic and regulatory environment, the identification of additional investment needs over and above those required to meet future performance commitments is unlikely to result in any dramatic loosening of purse strings. But that is no reason to avoid raising the issues.

Affordability may dictate the pace at which they are addressed, but companies should develop long-term, multi-AMP programmes that will drive them towards their resilience objectives. In so doing they will be taking an important step in ensuring that they maintain customer trust and confidence. As an industry, we do not want to wait for a major service failure to spur us to action on resilience – that should remain unthinkable.

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