ASSET HEALTH

THE WATER SECTOR NEEDS COMMON RESILIENCE STANDARDS AND REGULATION NEEDS TO RECOGNISE AND ASSESS ASSET HEALTH TO SUPPORT EFFICIENT INVESTMENT.

WHERE WE ARE

Northumbrian Water delivers essential services to our customers through a highly complex and varied asset base, with many of our assets required to operate for a very long time. It is critical that those assets are healthy and can operate effectively. There is growing evidence of increasing risk in the asset base; we have been able to manage these risks to date but this will need to be stabilised through additional investment.

Addressing future challenges, such as climate change and service improvement are also likely to require more material replacement of the existing asset base.

We have pushed to improve our approach to asset risk management. Our draft Asset Health Strategy (AHS) identifies how we capture, manage and improve our Asset Health data. Work done on asset health and criticality approach for civil structures and Mechanical, Electrical, Instrumentation, Control, and Automation (MEICA) at water and wastewater treatment works has been foundational in developing our Asset Risk Management framework (ARMf) approach that we are now developing. This provides a common currency in Northumbrian Water to enable more insightful asset management decisions and to aide in setting asset inspection plans and mitigation. Building on the success of the civil structures we are currently in the process of establishing an asset health baseline across the asset population.

However, while we are making good progress as a company improving our understanding of our asset health and our investment needs, we are not currently supported by the regulatory system with funding to manage the risks created by asset health.

There is currently no consistent guidance on how to measure asset health in the water sector, and no resilience standards we should meet or be funded for. Ofwat does include some crude measures of asset failure in its Outcome Delivery Incentive (ODI) framework, but these are backward looking and a poor measure of risk.

Ofwat has a resilience duty, but it has not yet engaged effectively with this issue. It has made little meaningful progress in improving asset risk management in the sector and we have little confidence that without a fresh perspective it's plan to assess asset risk management as set out in its PR24 final determinations will result in significant change.[i]

Asset health will be considered in the cycle 2 Drainage and Wastewater Management Plans (DWMP) that will inform the 2029 price review, and the Water Resource Management Plans (WRMPs) cover some aspects of asset health. But there is no common approach to asset health measurement in these planning processes, and these only cover a part of our asset base.

WHERE WE WANT TO BE

Good asset health management across the sector would have a clear set of standards agreed for customers that all companies need to meet, supported by consistent measurement and reporting. The price reviews would then need to fund sufficient investment to maintain those resilience standards on a forward-looking basis, taking into account the impact of climate change, growth and tightening environmental and security of supply standards.

Firstly a strategic direction and objective is needed for asset health. The government should provide a strong steer to Ofwat that asset health investment should be prioritised as part of fulfilling its resilience duty.

The next step is to operationalise a common approach to asset health risk management by setting resilience standards, as recommended by the National Infrastructure Committee (NIC).[ii] The GB energy sector provides an example of how this can be done. In Ofgem's RIIO-2 regulatory framework, the Network Asset Risk Metric (NARM) is used to measure the benefit to consumers from a company's asset management activities, and to hold companies accountable for their investment decisions.

The framework offers a consistent approach across the sector quantifying asset performance, insights, and benefits of maintain or replacing assets. It allows comparisons across the sector and enables a much more targeted approach to investment that addresses the health and risk of assets with a forward-looking view. While the NARM is not perfect, adopting a similar approach in the water sector would move us towards a more consistent, measurable and funded approach to managing risk from asset health.

HOW DO WE GET THERE

Issue	Recommendation for
The sector does not have a **clear strategic direction** on the importance of asset health for resilience.	**Government:** Require Ofwat to work with the sector to develop common resilience standards through the Strategic Policy Statement. **Government:** Set obligation on Ofwat to report to SoS on how they are addressing asset health.
There is **no common understanding of asset health risk management** in the water sector.	**Ofwat:** Work with the water sector through a detailed engineer-led review to set resilience standards for the water sector, using NARM as a potential model. These could include requirements for spot checks akin to National Grid's loading-shedding tests on the electricity network. Alternative options: **Government:** Ask an independent body, such as the National Infrastructure & Service Transformation Authority (NISTA) to set resilience standards and hand these over to Ofwat.
There is **insufficient funding for asset health.**	**Ofwat:** Directly link asset health funding to ensure resilience standards can be maintained. **Ofwat:** If a supervisory approach is adopted (see 'Regulating for the long-term: Financial Resilience and Investability'), asset health supervisors could work across multiple companies to drive consistency in standards. This could be done through an independent party, in a similar way to rating agencies for financial resilience. **Alternative options:** **Ofwat:** Use targeted financial metrics to set cost allowances for capital maintenance, such as constant depreciation rates, or target levels of capital maintenance per property. **Ofwat:** Adopt the approach used by the Water Industry Commission Scotland (WICS) which sets target annual investment amounts agreed between Scottish Water and its stakeholders.

IMPACT ON CUSTOMERS, THE ENVIRONMENT AND WIDER SOCIETY

Proactively maintaining and managing assets helps ensure that they remain in good working order, reducing the likelihood of service failures and is often cheaper than reactively fixing them when they fail. Providing enabling sufficient investment in asset health will mean customers experience fewer interruptions and more reliable water and wastewater services with a lower environmental impact, ultimately at a lower cost.

Addressing asset health proactively enhances the resilience of the water and wastewater systems against extreme weather events and other environmental challenges. This helps mitigate the impact of climate change on the infrastructure and the surrounding environment.

WAY FORWARD

Asset Health is a long-term problem and requires a long-term solution – we will make big strides for PR29, but further work will be needed beyond that. Gathering the data and analysis needed to define resilience standards is complex and will take time, so the Cunliffe review should not expect to be able to generate a complete solution in the short term. But the Cunliffe review can make it clear that there is an issue that needs to be addressed and make firm recommendations on how to move the sector forward.

We consider that developing resilient standards ahead of the next price review is the most important step. In our view, the best way to do this is to appoint an independent body such as NISTA to set the engineering asset standards, recognising that Ofwat is an expert in economic regulation not asset management.

It is important that asset health is acknowledged as an area that needs to be addressed in conjunction with, not in isolation from, consideration of climate change adaptation and the transition to Net Zero. This is why it is key that the strategic direction is set in Strategic Policy Statements for all regulators that highlight these interactions (See 'Regulating for the long-term: Adapting to and mitigating climate change').

[i] See 'Northumbrian Water - Statement of Case', Northumbrian Water, March 2025, pp.9-12.

[ii] See 'Developing resilience standards in UK infrastructure', NIC, September 2024.