

CIVIL CONNECT

BRIDGING THE AMP8 DATA GAP

Why "Good Enough" Asset Data Will Fail the 2025-2030 Resilience Targets

STRATEGIC WHITEPAPER
Infrastructure Resilience Series

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Executive Summary

The UK water sector is currently entering Asset Management Plan 8 (AMP8), a regulatory period defined by an unprecedented £104 billion investment programme. The mandate from Ofwat and Defra is clear: the era of "pollute and pay" is over. Water Companies must now deliver a 45% reduction in storm overflow spills and achieve radical improvements in network resilience by 2030.

However, a critical vulnerability threatens the delivery of these targets: **Data Decay**.

This whitepaper argues that the traditional model of cyclical, low-resolution asset surveys is no longer fit for purpose. Relying on historical data (often 5+ years old) to plan multi-million pound interventions introduces unacceptable risk. When ground conditions change due to climate volatility, "legacy data" becomes "liability data".

Key Findings:

- **The Precision Deficit:** Current industry reliance on outdated WRC coding leads to "blind" capital allocation, where repairs are targeted at the wrong assets.
- **The Regulatory Cliff Edge:** New environmental penalties under the Environment Act 2021 mean that ignorance of asset condition is no longer a legal defence.
- **The Agile Tier 1 Solution:** The answer lies in "Dynamic Asset Intelligence"—the use of rapid-deployment, AI-verified survey data (CCTV, Sonar, LiDAR) that feeds directly into live Building Information Models (BIM) and Drainage and Wastewater Management Plans (DWMPs).

"We cannot solve 2030 problems with 2020 data. AMP8 demands a shift from reactive surveying to proactive, predictive asset intelligence."

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01. The New Regulatory Reality

THE £104 BILLION CHALLENGE

The transition to AMP8 (2025–2030) marks a paradigm shift in UK infrastructure. Unlike previous periods focused on efficiency, AMP8 is driven by **environmental outcome delivery**. The regulatory framework, shaped by the Environment Act 2021 and Ofwat's PR24 Final Methodology¹, has shifted the burden of proof onto asset owners.



Water Companies and their supply chains are now legally mandated to reduce storm overflow discharges. The Storm Overflows Discharge Reduction Plan² sets statutory targets that require not just the construction of new storage tanks, but the optimization of existing networks.

The Operational Implication:

You cannot optimize what you cannot see. The "fix on fail" mentality is legally obsolete. Under the new *Drainage and Wastewater Management Plans (DWMPs)*, operators must demonstrate a long-term understanding of network capacity and condition. This requires a level of data granularity that most current asset registers simply do not possess.

The penalties for failure are severe. Beyond financial fines, the reputational damage of pollution incidents has become a boardroom-level risk. In this high-stakes environment, data accuracy is not just an engineering preference; it is a corporate safeguard.

02. The "Good Enough" Data Trap

WHY HISTORICAL DATA IS A LIABILITY

For decades, the industry has relied on cyclical asset surveys—inspecting 20% of the network every year to build a complete picture over five years. In a stable climate, this was sufficient. In the volatile climate of the 2020s, it is a liability.

The Phenomenon of Data Decay

A CCTV survey conducted in 2022 may grade a sewer as "Grade 3" (Serviceable). However, following the record-breaking rainfall and flash flooding events of 2024 and 2025, that same asset may have deteriorated to "Grade 5" (Collapsed/Imminent Failure). Relying on the 2022 data to plan 2026 interventions leads to:

- **Misallocated CAPEX:** Investing in relining pipes that actually need full replacement.
- **Unexpected Mobilisation Costs:** Discovering the true state of an asset only when the rig arrives on site.
- **Regulatory Breaches:** Assuming a network has capacity when undetected siltation or root ingress has reduced flow by 40%.

Case in Point: Subsurface Blind Spots
Many Tier 1 contractors rely on PAS 128 utility mapping that is outdated. This results in "utility strikes"—the leading cause of delay in UK infrastructure projects. In AMP8, where speed of delivery is critical, these preventable delays are unacceptable.

The "Good Enough" approach assumes the ground is static. But with soil desiccation (droughts) and hydraulic overload (floods), the subsurface environment is dynamic. Our data strategies must match this reality.

03. Solution: Dynamic Asset Intelligence

FROM STATIC REPORTS TO DIGITAL TWINS

To meet the resilience targets of 2030, the industry must pivot to **Dynamic Asset Intelligence**. This is the methodology of gathering high-fidelity, real-time data that feeds directly into decision-making frameworks.

The Three Pillars of Dynamic Data:

1. AI-Verified Coding (WRC MSCCS)

Human error in CCTV coding creates inconsistency. By utilizing AI-driven validation alongside certified OS19X surveyors, we ensure that a crack is identified as a crack, regardless of who is watching the screen. This standardization allows for accurate predictive modeling across entire catchments.

2. Multi-Sensor Fusion

Visual data (CCTV) is often not enough, especially in surcharged lines. True intelligence requires the fusion of:

- **Sonar:** To map sediment levels and calculate true hydraulic capacity.
- **LiDAR/Laser Profiling:** To measure precise deformation and corrosion in large-diameter tunnels.
- **3D Mapping:** Creating geospatial "Digital Twins" that align with ISO 19650 BIM standards.

3. The "Golden Thread" of Information

Data must not die in a PDF report. It must be accessible, exportable, and integrated. By maintaining a "Golden Thread" of data from initial survey through to rehabilitation and handover, we provide clients with a legally defensible audit trail of their assets.

"Dynamic Intelligence turns a survey from a 'cost' into an 'asset'. It is the foundation of the smart water network."

04. The Civil Connect Advantage

AGILE TIER 1 DELIVERY

The challenge for major Water Companies and Utility Providers is that traditional Tier 1 consortiums are often too slow to mobilize, while smaller local contractors lack the data governance required for regulatory compliance.

Civil Connect bridges this gap.

As a specialist Tier 1 Contractor, we combine the robust HSEQ and Data Governance standards of a major infrastructure firm with the agility of a self-delivery partner. We do not just manage the supply chain; we are the supply chain.

Our AMP8 Capabilities Include:

- **Nationwide Mobilisations:** Rapid response fleets capable of deploying high-tech survey units to any UK location.
- **Complex Enviro-Engineering:** Expertise in hazardous environments, confined spaces, and difficult-access river/hall interfaces.
- **Data Assurance:** All data is delivered to WRC MSCCS standards and is fully BIM-compliant, ready for integration into your asset management systems.
- **End-to-End Remediation:** We don't just find the problem. From UV CIPP lining to robotic cutting and chills excavation, we deliver the fix immediately after the survey, drastically reducing project timelines.

Conclusion

The AMP8 resilience targets are achievable, but not with yesterday's methods. By partnering with Civil Connect, you secure not just a contractor, but a Data Assurance Partner dedicated to de-risking your capital programme.

References:

- Ofwat (2024). *PR24 Final Determinations and Methodology*.
- Defra (2022/23). *Storm Overflows Discharge Reduction Plan*.
- Water UK (2024). *21st Century Drainage Programme*.
- WRC (2024). *Manual of Sewer Condition Classification, 5th Edition*.

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Ready for AMP8?

Contact our strategic partnerships team to discuss how we can de-risk your asset management plan.

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