

case study

Wokingham Borough Council

[How it started](#)

Keen to manage their drainage network of 240 km of pipework and 32,000 gullies more efficiently, Wokingham Borough Council through VolkerHighways approached map16 for a proactive solution. Their previous reactive maintenance strategy was proving to be expensive and time consuming, and with the ever-apparent impact of climate change, future-ready drains are a necessity for the borough.

[The solution](#)

map16 deployed ultrasonic sensors strategically within gullies to monitor water levels within the chamber. The sensors continuously collect real-time data, transmitting it seamlessly to the council through the map16 platform. The system generates notifications to users when gully levels approach 75% capacity, serving as an early warning mechanism to pre-emptively schedule cleansing activities, averting the risk of flooding. Users receive detailed information pinpointing the exact gully requiring attention and the specific levels allowing maintenance crews to navigate to the designated site with increased efficiency, ensuring that cleansing operations are executed swiftly and effectively, thereby enhancing the resilience of Wokingham's drainage infrastructure.

[The benefits](#)

Transitioning from reactive to a proactive maintenance model, Wokingham Borough Council now have the ability to monitor the condition of their drainage assets in real time.

The council gains invaluable insight into the condition of their drainage assets, now with the power to arrange maintenance works precisely when and where they are needed most. By pre-emptively addressing issues before they escalate, the council not only optimises resource allocation and operational efficiency but also benefits from financial savings annually. This shift in operation streamlines workflows and fortifies the resilience of Wokingham's infrastructure, ensuring the continued functionality and safety of its drainage network for years to come.

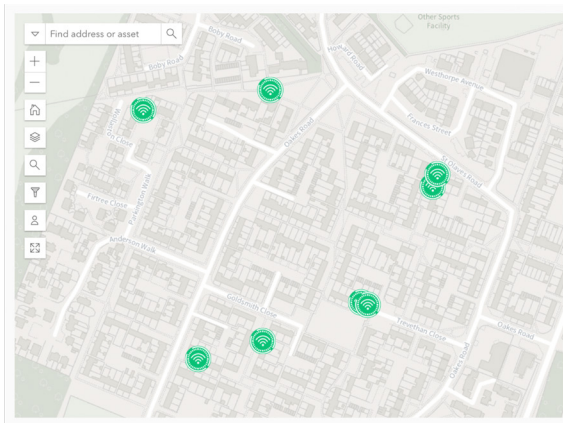


In the field

Whereas previously all data collected on site was manually entered through multiple, time consuming systems, the map16 inspection forms now auto-populate at lot of data, meaning the engineer's primary function is doing the inspection works, not completing paperwork. Crews can now also massively improve health and safety validity with photo uploads directly into the relevant forms, proving they've done essential tests, and showing works have been completed to the standard expected.

Crews are able to increase efficiency when in the field as the system allows Anglian Water to identify jobs within a close vicinity to each other, and can complete multiple jobs during one visit, saving the company time and money. Full inspections are carried out, including CCTV works, jetting and the installation of a monitor as a proactive approach to ensure the network is running smoothly.

“Every team was doing something different, there were so many inefficiencies in what we were doing, we realised that there had to be a better way of doing this”.
Harley Evans, Anglian Water Programme Manager



The digital twin

Data that was once a row in a spreadsheet now has a tangible, reliable digital twin. Users can see how the sewer network is performing across the region as a whole as well as in specific areas, and therefore can be more efficient with planning resource where it is actually needed. Known problematic areas that had previously been identified by Anglian Water have their own dashboard, with frequent cleanses scheduled for these assets. It's this attention to detail that minimises network disruptions, and maximises network knowledge.

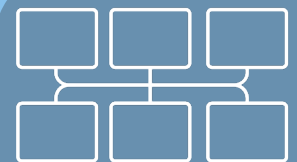
Crew performance can be easily monitored across the region, tracking everything from a universal platform - it's essentially a program manager tool and a progress management tool, all in one. See which teams are scheduled to work on particular days, how they are performing, individual task failure rates and and shifts worked vs monitors installed. Users are able to see a detailed, specific view on productivity, dialling in on performance. To be able to really see exactly how teams are performing, exactly where your pain points are and where your failure demand is allows you to design these things out.

127,000
metres of unknown
sewer found and
inspected



Achieved twice the
amount of works
within budget

1,629
previously unknown
blockages discovered



6 systems in 1