Aqua DNA
by Jacobs

TRANSFORMING WASTEWATER NETWORKS FOR A SUSTAINABLE FUTURE

Introducing Aqua DNA, an intelligent digital solution that collects live data and improves wastewater network performance using smart sensors and AI-powered predictive analytics to reduce risk and make a positive societal and environmental impact.

14%
reduction in external flooding*

20%
reduction in sewer flooding*

20%
reduction in pollution events*

13%
reduction in blockages*

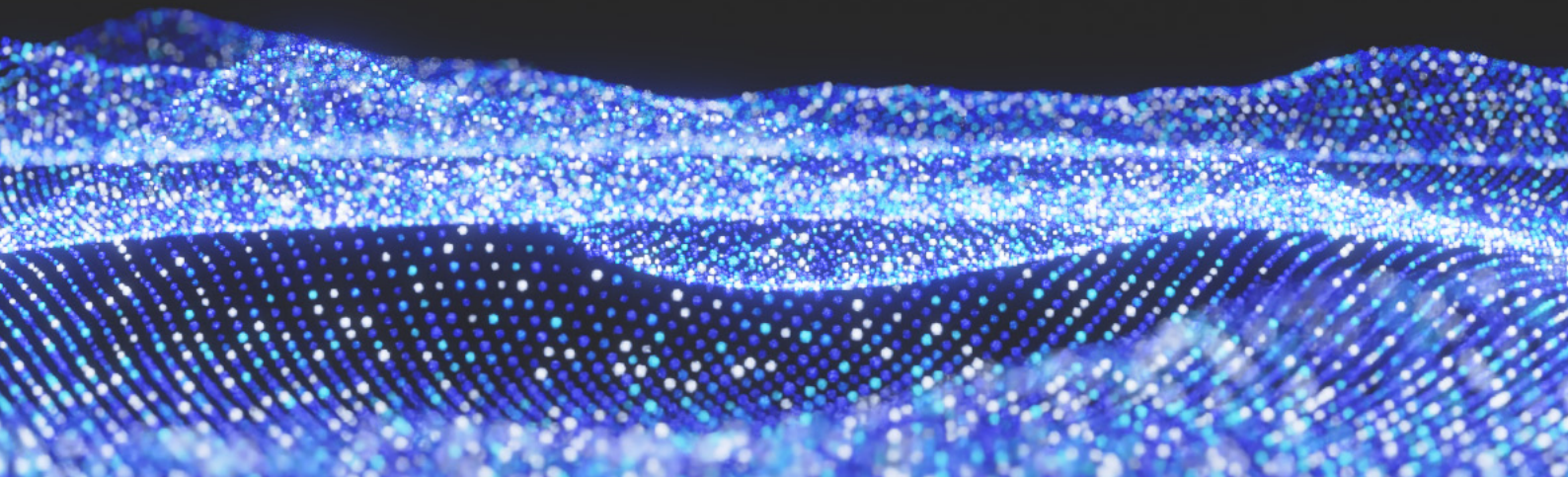
Introducing Aqua DNA

At Jacobs, we are specialists in water and know digitalization, decarbonization and smart operations are essential enablers and imperatives for managing the water cycle. We've been using this core domain knowledge to help us develop a game-changing digital product that will transform wastewater networks.

By introducing smart technology and sensors into the wastewater network, utilities can understand how their systems are performing in real time, alerting operators to potential incidents and avoiding damaging spills, floods, blockages, and discharges, which are harmful to their customers and our environment.

Aqua DNA seamlessly captures thousands of data points every second, and it's all analyzed in real time. Consistent data enables Aqua DNA to recognize operational patterns and assets in parts of the network, identifying conditions that lead to incidents earlier than ever before!

Aqua DNA offers tiered levels of service, providing network insights to utility companies, centralizing data and pooling knowledge for a common purpose, extending the life of our wastewater networks. Aqua DNA connects operation assets and systems and is supporting utilities in their transition from reactive to proactive ways of working.



Testimonial

Steve Mogford
Chief Executive

United Utilities

"Working with Jacobs, we are the first in the world to be implementing this technology at this scale and with artificial intelligence being applied for full network system learning, we believe the work we're doing is truly transformational and will deliver a step change in wastewater performance."

"We've achieved a significant improvement in performance. We've already detected and resolved over 1,600 operational issues and we're on track to roll out the remainder of the 20,000 sensors and enhance telemetry at over 3,000 sites by Autumn 2022"

Our Aqua DNA Process

1. Upfront testing and audit

The Aqua DNA team will review your current system to understand your data availability and quality. Are you maximizing what you already have and what data do you need to improve end to end management? We provide a report on our findings.

2. Recommendation, installation, and placement

Our system specialists have a deep understanding of sensors from knowing device lifecycles, quality of service to hostile environments. Our location app manages the design, validation, survey, install and snagging of any sensor on the wastewater network. We combine hydraulic modelling and historic incident data to target hot spots.

3. Solution integration

Aqua DNA is a modular, agnostic platform that can ingest data in any format and can be integrated into other systems. It can work with your existing sensors and seamlessly interface with your IT and OT – we can convert data to make it readily useable. It can also be a holding platform to bring all your information into one place.

4. Platform check

Here the system is tested to make sure it has been correctly set up for the client's needs, we can manage the ongoing data traffic to save you time.

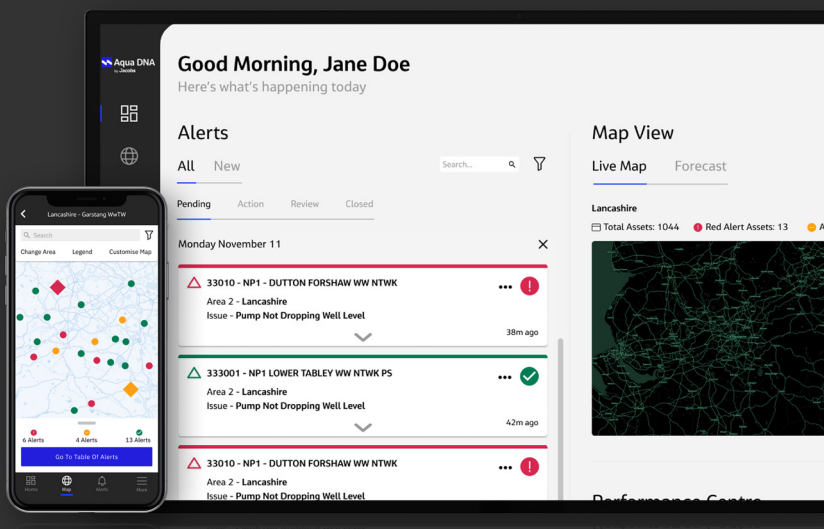
5. Iterative improvements

Once Aqua DNA is running, regular check-ups recommend areas that can be improved for future success.

What's next for Aqua DNA

- ✓ Spill report modelling
- ✓ Contingency planning tool
- ✓ Detention tank reporting
- ✓ Enhanced compliance monitoring
- ✓ Training environment
- ✓ Enhanced alerting
- ✓ CSO power monitor

...and much more



Making connected assets and smart systems an operational reality for water utilities?

Get in touch with the team today at AquaDNA@Jacobs.com