

Anglian Water Case Study

Building a More Resilient Water Supply System

Plan, optimise and adapt production in minutes with Production Planning Module of Aquadvanced® Water Supply

280K

STRATEGIC PIPELINE TRANSFERRING
WATER ACROSS REGIONS

6Million

CUSTOMERS SERVED ACROSS EASTERN
ENGLAND

“



We're much more confident that the right decisions will be made now that Production Planning have a view of the whole system.

Adrian Hinchliffe , Supply Manager at Anglian Water.

All operational teams – Supply, Networks, Tac Ops and Abstraction Licensing - are now working to the same set of instructions, which is critical during Summer Demand, but useful all year round.

Scott Cooke, Supply Support Manager at Anglian Water.

”

Client issue

Anglian Water operates in one of the **UK's most water-stressed regions**, where **climate change, uneven rainfall** and **population growth** are placing **increasing pressure on water resources**. Ensuring a reliable water supply therefore requires managing multiple complex operational challenges. Including:

- Balancing growing demand with limited resource availability

- Meeting strict abstraction licence conditions to protect the environment
- Planning effectively across short-, medium-, and long-term horizons
- Coordinating operations across a vast network of pipelines and treatment assets
- Responding quickly to drought risks and evolving regulatory requirements.

Legacy **manual and siloed planning approaches** made it difficult to manage these challenges efficiently and holistically.

Anglian Water therefore needed a **next-generation digital platform** capable of keeping pace with system complexity while supporting faster and more informed operational decision-making.

Solution implemented

In partnership with SUEZ, Anglian Water adopted the **Production Planning Module of Aquadvanced® Water Supply**; an **AI-powered platform** that models the entire water supply network and simulates multiple scenarios to **optimise production plans**.

Key solution features include:

- Accurate system replication, integrating physical and operational constraints
- Advanced scheduling that respects abstraction licences and asset maintenance



Plan, optimise and adapt production in minutes with Production Planning Module of Aquadvanced® Water Supply



- Scenario analysis and comparison to anticipate drought conditions, demand peaks, and infrastructure evolution
- Dynamic, coordinated plans spanning hours to years
- Intuitive visual dashboards for clear operational insights.

Through a programme of workshops and collaborative testing, the solution was **tailored to Anglian Water's operational and regulatory environment**, providing the confidence needed for successful deployment at scale across multiple regions.



How it works

Aquadvanced® Water Supply Production Planning uses a smart mass balance strategy combined with AI forecasting and optimisation to model how water moves through the network, from rivers and reservoirs through treatment plants and pipelines to customers.

By analysing historical and real-time data on demand, abstractions, storage, and infrastructure capacity, the platform can

generate optimised production plans that:

- Precisely match supply to customer needs
- Respect environmental and licence constraints
- Adapt dynamically to operational changes or emergencies.

Unlike traditional production planning tools which often require multiple external spreadsheets and long calculation times,

Aquadvanced® can generate usable production plans within minutes.

Its intuitive and configurable interface allows operators to instantly visualise system constraints and adjust parameters in real time, enabling production plans to be refined and re-run immediately as conditions evolve.

Differentiating factors

What sets Aquadvanced® Water Supply Production Planning apart for UK water companies like Anglian Water?

- **End-to-end modelling:** Production Planning covers the entire water supply systems, not just isolated parts
- **Flexible, scenario-based planning:** Helps operators to prepare for drought, infrastructure upgrades, regulatory changes and other events
- **Real-time planning capability:** Production plans are generated in

- less than a minute, replacing processes that previously took many hours or days. This allows operations teams to test and compare multiple supply scenarios, make faster decisions, and anticipate changes in network conditions
- **Collaborative development:** Built through a close client partnership and rigorous testing programme, resulting in a solution tailored to Anglian Water's operational environment and ready for deployment at scale

- **Clear visual insights:** Intuitive dashboards provide rapid visibility of system constraints and operational risks, enabling teams to make faster, better-informed decisions
- **Regulatory alignment:** Supports abstraction licence management and compliance with environmental conditions.



Plan, optimise and adapt production in minutes with Production Planning Module of Aquadvanced® Water Supply



Results

The trial phase demonstrated that Aquadvanced® Water Supply Production Planning delivered **tangible** and **time-critical benefits**, including:

- Generating production plans in minutes rather than hours or days
- Producing highly reliable production plans aligned with licence limits
- Enabling **faster** and **more confident operational decisions** through real-time data visualisation
- Coordinating multi-horizon strategies that strengthen system resilience
- Supporting strategic investment decisions for the new water transfer pipeline
- Helping future-proof water supplies against climate uncertainty
- Improving incident response, enabling teams to rapidly adapt
- production strategies during operational disruptions.
- Allowing operators to generate production plans on demand and react quickly to changing supply conditions across complex systems such as Colchester and Ipswich.

About client

Serving around 6 million people across eastern England, Anglian Water operates in one of the UK's most water-stressed regions, where climate change, population growth and uneven rainfall are increasing pressure on water resources.

To address these challenges, the company is transforming how it plans and manages water production, adopting smarter and more coordinated strategies to secure reliable supply.

Anglian Water is also investing in major infrastructure such as the Strategic Pipeline to transfer water between regions and strengthen system resilience, while leveraging digital tools and data-driven planning to optimise operations and ensure sustainable water services for communities and businesses.

About SUEZ

Faced with growing environmental challenges, SUEZ has been delivering essential services that protect and improve our quality of life for more than 160 years. SUEZ provides its customers with innovative and resilient solutions for water and waste services.

With 40,000 employees across 40 countries, the Group works with customers to create value over the full lifecycle of their assets and services, and to drive their low carbon transition. In 2025, SUEZ provided drinking water for 67 million people worldwide and sanitation services for 36 million people.

The Group generated 8.7 TWh of energy from waste and wastewater. In 2025, SUEZ generated revenues of 9.5 billion euros.

