

47% Cost Reduction Through Smarter Pumping Solutions

At a Glance



- 47% reduction in borehole operating costs
- £28,000 annual savings achieved
- 147 tonnes CO₂ saved per year
- 8-month payback period

► Engineering Smarter Water Supply

Faced with rising operational costs and complex groundwater dynamics, a UK-based water treatment site needed to optimise its raw water abstraction system. The site relied on two remote boreholes to maintain water quality, but inefficiencies in pump performance and abstraction licensing constraints were driving up energy use and costs.

Key Actions:

- Conducted a site-wide pump performance survey
- Identified inefficiencies and abstraction constraints
- Prioritised cost-effective, low-disruption interventions

► Tailored, Future-Ready Solutions

To avoid costly pump replacement, the team applied a tailored engineering solution. Variable speed drives were added to the pumps serving the more efficient borehole. This allowed 40% of the abstraction to shift to the cheaper borehole, cutting energy use while maintaining compliance and water quality.

Key Benefits:

- Reduced reliance on high-cost infrastructure by optimising existing assets
- Maintained regulatory compliance through adaptive flow control
- Improved energy efficiency with smarter pump operation
- Delivered immediate savings without compromising water quality

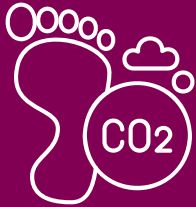


Solution Summary



Efficiency Optimised

Smarter pump control



Carbon Reduced

Better carbon control



Value Unlocked

Cost savings achieved

► Long-Term Value Delivered

By rebalancing flow between boreholes and enhancing control, the site achieved significant operational and environmental benefits. The solution was agile, low-impact and delivered rapid ROI, all without compromising water quality or regulatory compliance.

Outcomes:

- £28,000 saved annually
- 147 tonnes CO₂ reduction
- Payback in under 1 year
- Improved borehole performance and reliability

► Engineering Excellence, Trusted Delivery

This project demonstrates how intelligent, client-focused engineering can deliver significant operational and environmental benefits. By listening first and tailoring our approach to site-specific constraints, we delivered a solution that was not only cost-effective but also future-ready.

The success of this project reflects our commitment to long-term client value, optimising performance, reducing environmental impact and ensuring compliance without compromise.

It's a clear example of how we work as part of our client's team to deliver dependable, high-quality outcomes.