# BREWING BETTER WATER: VEOLIA DELIVERS A HIGH-PERFORMANCE PROCESS UPGRADE FOR A BEVERAGE MANUFACTURER

**CASE STUDY** I Food & beverage

## | The client's needs

**A UK-based beverage manufacturer was preparing to convert an acquired facility to support domestic production of a premium lager brand and introduce a new soft-drinks line**.

The site's process water infrastructure required a comprehensive engineering upgrade to deliver stable flow, controlled water chemistry and high-purity treated water compliant with the stringent specifications for both brewing and hygienic beverage manufacturing.

The manufacturer required a reliable, multi-technology water treatment solution capable of treating a complex borehole supply while also supporting hygienic soft-drinks production. To remain cost-effective, the system needed to maximise the use of borehole water. A stable treated-water supply throughout a staged construction programme was also essential to maintain continuous production.
Other technical and operational requirements included:

- **Complex borehole water treatment:** Raw water required iron removal, carbon filtration and reverse osmosis (RO) to meet brewing-quality specifications.
- **Hygienic process-water stream:** A dedicated sanitary line with hot-water-sanitisable equipment was essential for soft-drinks production.
- **Staged decommissioning:** Ageing, unfit-for-purpose infrastructure had to be removed and replaced without interrupting production.
- **Integrated multi-technology delivery:** The solution had to incorporate filtration, RO, Clean-in-Place (CIP) systems, degassing and hygienic carbon technologies from a coordinated supplier.
- **An experienced, multi-disciplinary partner:** The manufacturer needed a supplier with proven capability across multiple treatment technologies and the expertise to deliver a complex, integrated project.

## | The solution

**A combination of Veolia products and services provided the breadth of expertise required to deliver a complete, multi-technology process water solution comprising a permanent engineered plant, hygienic process equipment, and mobile water systems to guarantee continuity of supply.**

The manufacturer had previously used the PROflex RO system and was keen to explore it again. PROflex's modular design allows bespoke customisation across pumps, membranes, instrumentation, programmable logic controllers (PLCs), electrical components and structural elements. This flexibility made it straightforward to tailor the RO system to meet the specific regional and project requirements.



*UK*

## | The client

**A UK-based beverage manufacturer**



### *Key Figures*

**3**
beverage production applications

**5**
Key water treatment technologies

**1**
Integrated water treatment solution

Other technologies specified included:

- **Filtraflo* Iron Removal / Multimedia Filter:** Provides in-depth filtration for suspended solids, iron and manganese removal, and turbidity reduction.
- **Filtraflo Carbon Filter:** Provides carbon filtration to remove free chlorine, organic matter, pesticides and hydrocarbons, while helping control taste and odour.
- **CIP Skid:** Enables safe and efficient membrane cleaning.
- **Degasser Tower:** Removes dissolved gases to improve treated water quality.
- **PureBev* Hot-Water Sanitisable Carbon Filter:** Delivers hygienic carbon filtration that can be sanitised using hot water or steam, specifically engineered for food and beverage production.

Our solutions ensures the manufacturer will consistently meet their water-quality specifications required for both brewing and soft-drink production.



## | The benefits

The upgraded system delivers reliable, high-quality process water for brewing and soft-drinks production, improving product quality and hygiene while reducing operational risk and disruption. It also supports future growth, backed by Veolia's ongoing technical support.

## | Process description

**Veolia supplied standard filtration units providing proven, pre-engineered performance. Manufactured to fixed specifications for vessel size, media depth, hydraulics, controls and performance envelope, these units offer modular multimedia filtration and consistent performance encompassing flow rates, backwash velocities and pressure ratings.**

To support the phased installation, Veolia provided a mobile water treatment system for more than 12 months. This enabled the manufacturer to remove its existing equipment, make significant improvements to the site's infrastructure and layout, as well as installing, commissioning and testing the new permanent system whilst maintaining a reliable supply of treated water for production. The mobile water treatment system was fundamental to the project, allowing the works to progress without interrupting manufacturing operations.

## | Results

**Veolia's flexible, multi-technology approach was a key differentiator, enabling the team to tailor the system to the customer's specific requirements while maintaining cost-effectiveness and operational reliability.**

Long-term mobile water support also provided essential operational resilience during construction, allowing production to continue while the existing infrastructure was decommissioned and the new system installed and commissioned.
The installation provides a modern, reliable and fully supported water treatment system that meets stringent water quality and quantity requirements, while supporting the customer's future expansion plans.

Key outcomes include:

- Reliable, high-quality treated water suitable for brewing and soft drink production
- Maintained treated-water availability throughout more than 12 months of phased construction using mobile water treatment
- Improved operational resilience through modern equipment, staged construction and mobile water units
- Hygienic production capabilities enabled by specialist beverage water treatment technology and sanitary design
- Reduced operational risk through the replacement of ageing, unsuitable infrastructure
- Long-term technical support from Veolia's UK service team

By integrating multiple technologies and managing a complex, phased installation, including mobile water treatment throughout the works, Veolia has enabled the customer to modernise its production site, safeguard product quality and prepare for new product lines while maintaining business operations.

The project demonstrates Veolia's ability to deliver flexible, multi-technology solutions that meet increasingly stringent industrial water quality requirements and regulatory standards.

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