

# Securing supplies sustainably



The Anglian Water region is home to some of England's rare and precious chalk streams, a hugely valuable environmental asset, rich in aquatic plants and wildlife, which must be protected for the future. Our biggest single investment of AMP6 will do just that, safeguarding the delicate ecosystem of the River Wensum at Costessey Pits, outside Norwich, for many years to come.

The ambitious £36 million scheme, carried out over three years, has allowed the abstraction point for the rapidly growing city of Norwich to be moved away from the delicate upstream section of this important chalk river, a Site of Special Scientific Interest (SSSI), to our water treatment works at Heigham. Here, water flows are higher as the River Tud joins the Wensum upstream. This means the water needed can be taken from the river without risk of harm to the precious upstream ecosystem at times of low flow.

Before the scheme was carried out, abstraction via the River Wensum into our Costessey Pits provided a natural storage system for water, allowing solids and sediment to settle out before the raw water was pumped to the Heigham works for treatment.

**“It's great to see Anglian Water investing and innovating to protect the environment and serve our growing population, safeguarding the future of the region for generations to come.”**

**Chloe Smith, MP for Norwich North**



Europe's largest membrane ultrafiltration system removes sediment



Anglian Water's £36 million scheme at Heigham has safeguarded the ecosystem of the River Wensum

The impact and risks of climate change on river flows and groundwater levels meant this approach was no longer sustainable, and a new solution was needed to secure long-term water supplies to the people of Norwich, one of the fastest-growing cities in the UK.

It was clear we needed to do something ambitious. We decided we had to find a way to move the abstraction point away from Costessey to Heigham itself. Previously, the water at this point contained too much sediment to be treated without settling first. Working with our @One alliance partners, we came up with a scheme that would solve this problem while minimising the amount of new, carbon-hungry infrastructure needed.

Funded sustainably through our Green Bonds, the Heigham scheme included the installation of Europe's largest state-

of-the-art membrane ultrafiltration system, which removes sediment from the water through 7.5 million individual fibres before it is further treated to reach the exceptional standards required.

Cutting carbon was a priority, and the scheme saw a 62 per cent reduction in capital carbon versus the baseline solution, and an energy saving of more than two million kilowatt hours every year. The new treatment works can now secure safe, clean drinking water supplies while retaining its 57 megalitres per day capacity and protecting the precious chalk-fed River Wensum for the long term – a great outcome for the people of Norwich and a great outcome for our environment.



Children from Wensum Junior School have visited the works several times