

Embracing innovation for a sustainable future

At Affinity Water, innovation and collaboration is at the heart of how we are building a more resilient and sustainable future, and it is embedded across the business into our long-term thinking in how we operate.

Our innovation portfolio is well established and governed by a CEO-chaired Steering Group, with commitment from our leadership team.

We have established inter-department engagement for our initiatives, which are driven with strong collaboration across the business, engaging demand management, operations, customer experience, data science and IT. The central management and oversight of all innovation initiatives also allows alignment of business plans and collaborative planning, reporting, knowledge and capability sharing, and lessons learned across the business, which ultimately contribute to improved outcomes and efficiencies.

In 2021, we entered into the first two Ofwat innovation challenges and were delighted to have been awarded funding as lead entrant on three innovation projects. One for the 'Ofwat Innovation Fund Breakthrough Challenge' and two for the 'Ofwat Innovation in Water Challenge'. This is a great accomplishment, and these are exciting and high-profile initiatives that demonstrate our commitment to delivering innovation.

Ofwat Innovation Fund Breakthrough Challenge – water neutrality at NAV sites

The project will deliver the world's first at-scale water-neutral new housing development in collaboration with a New Appointments and Variations (NAV) company.

NAVs are limited companies which provide a water and/or sewerage service to customers in an area which was previously provided by the incumbent monopoly provider.

Working at identified NAV sites, we are leading a collaborative project to go beyond current 'sustainability' ambitions and to ensure c.3,000 new homes were measurably water neutral.

Project outcomes and target benefits:

- Managing increasing demand on our network sustainably while ensuring resilience in our operations and protecting local environments.
- Supporting a more competitive market with comprehensive vulnerability and asset discovery that reduces false positives by 20%.
- Helping customers across c.3,000 homes reduce their consumption through the installation of water-saving devices and providing guidance on water wastage reduction activities through behavioural change initiatives.

- Ensuring no lost water through recycling across the sites so that we save on average 112,000 litres every year for each water-neutral home built. This equates to over 336 million litres over the total number of properties we are targeting.
- Carbon savings equivalent to around 107 tonnes of CO₂e per year.
- Annual savings on water and energy bills of around £44 per home.
- Establishing an innovative and collaborative approach to service delivery over a two-year project that can be rolled out in future projects.
- Sharing the learnings at multiple sector forums and supporting the establishment of water-neutral sites across other locations in the UK via publication of a Water Neutrality Blueprint.

Ofwat Innovation in Water Challenge Project – Smarter Tanks

This project proposes to develop a 'business model canvas' for two potential business propositions that harness real-time monitoring and control solutions. The project will explore optimised strategies for real-time top-up control for both drinking water and rainwater storage tanks. Recently developed I4 solutions have enabled a lower cost proposition and, for the first time, we can test new ways to build water supply resilience. This would benefit customers and the environment by integrating the storage within these existing smaller decentralised assets with a water company's centralised control systems/operating philosophies – can we access 50% more reservoir storage than we currently think?

Project outcomes and target benefits:

- To explore the value of integrating the business model canvas as a template tool within water company innovation projects – rainwater harvesting model canvas.
- To explore the holistic benefits (and barriers) of retrofitting RTC systems to optimise potable water storage in urban areas.
- To pilot two novel use cases and share best practices.
- To summarise and openly share a business model canvas for each application, supporting rapid scalability by local/national partners if a successful value proposition is defined.
- To take a systems approach to explore the use of decentralised water storage assets.

- To share best practice at relevant BSI and British water groups.

Ofwat Innovation in Water Challenge Project – Seagrass Seeds of Recovery

Seagrass Seeds of Recovery will provide a blueprint for upscaling the restoration of seagrass to enhance the resilience of the estuarine and coastal waters of the Affinity Water and Anglian Water supply regions in Essex and Suffolk. It will draw on nature-based solutions by creating local opportunities to increase biodiversity and carbon/nitrogen sequestration. It will provide a route map to unlocking 'blue carbon' potential (carbon captured by the world's ocean and coastal ecosystems), for the water industry and beyond.

Project outcomes and target benefits:

- Provision of a blueprint for the restoration of seagrass in the UK.
- Creating opportunities for biodiversity improvements, and carbon and nitrogen sequestration.
- Provision of a route map to unlock the 'blue carbon' potential (carbon captured by marine ecosystems), for the water industry and beyond.
- Provision of practical research (findings from the pilots) that will provide an evidence base for blue carbon potential.



Our Genes

- Stewards of the local Environment
- Giving customers an exceptional service
- Helping customers use water better

Customer outcomes

- Making sure you have enough water, whilst leaving more water in the environment
- Providing a great service that you value
- Minimising disruption to you and your community

UNSDGs

