

# KingspanWater Case Study

## Sevenside Housing, Shropshire



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*Sepp Sargeant, Head of Investment Services, Sevenside Housing.*

**Client:** Sevenside Housing

**Project:** Residential Development

**Location:** Ford, Shropshire, UK

**Product:** KingspanWater Envireau Fully Integrated Rainwater Harvesting Systems

## Kingspan Water Provides Rainwater Harvesting System for Sevenside Housing

**When Sevenside Housing needed to provide quality, affordable homes it embarked on a building project that would not only meet their local communities' needs but also provide sustainable housing for the area.**

The residential development in Ford, Shropshire, cost £1.2m to build and was completed in December 2009. Arranged in a cul-de-sac, the 10 two- and three-bedroom houses within the development allow tenants to rent or give the option for a part-rent, part-buy scheme. The scheme, which is administered by the Housing Association, offers shared ownership to tenants who cannot afford to buy a house outright.

Besides the need to address social housing, Sevenside puts a high priority on providing homes that are green, aiming to reduce the overall carbon footprint of its housing portfolio.

The public sector leads the way on sustainability, with Level 3 of the Code for Sustainable Homes already mandatory, and the private sector following suit later this year.

To achieve higher levels (5 and 6) of the Code, developers have to reduce the property's main water consumption from an average of 160 litres per person per day, to as little as 80 litres. This can only be achieved by installing sustainable water devices (such as aerated taps) and rainwater harvesting. To meet these requirements Sevenside Housing called on KingspanWater to provide rainwater harvesting systems for the development.

Sepp Sargeant, head of Investment Services at Sevenside Housing says: *"We asked our installers APT Plumbing & Heating Ltd to select a rainwater harvesting system that would ensure we complied with the Code for Sustainable Homes.*

*Sustainable, Reliable, Affordable*



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*"The development combines several energy efficient measures to minimise energy consumption. The buildings use rainwater harvesting, high levels of insulation, energy efficient condensing gas boilers, solar panels for heating water, and gas-filled double-glazed windows and doors. Together these measures lower the homes' running costs and lower the impact on the environment," he adds.*

Adrian Gatford from KingspanWater explains: *"We understood that sustainability was a high priority for Sevenside Housing. The Envireau rainwater harvesting system used in the development greatly reduce mains water consumption for the residents by supplementing this supply with rainwater for non-potable uses."*

The direct system collects rainwater from the roofs (each with a surface area of between 100 and 120 square metres). It is then filtered before being stored in 3,000 litre underground tanks. When required, the water is automatically pumped back into the building using a low power consumption multi-stage pump system. The water collected can be used to flush toilets, fill washing machines and is plumbed into outside taps to water gardens.

During periods of low or no rainfall, the system automatically switches to using mains water to fulfil the water needs of the home.

Residents can save up to 50% of their annual water consumption. The system cost £4,000 to install in each house, and future proofs against future water charging.

Residents can monitor the levels of water in the tank by referring to the easy-to-use control panel situated either in the kitchen, or hallway of the property.

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Adrian Gatford continues: *"It is important to realise that a water recovery system like this completely transforms how water is consumed by the residents. They use less water, and produce less waste, which reduces the carbon footprint of the building and reduces pressure on the surface water drainage in the area. Such factors are viewed very favourably by planners when they are considering the impact of new buildings."*

The design of the Envireau system means the installation of the rainwater harvesting system was very easy and the maintenance cost is very low.

*For more information, call the KingspanWater Technical Advisory Service on +44 (0) 28 3836 4400, or visit our website [www.kingspanwater.com](http://www.kingspanwater.com).*



*Sustainable, Reliable, Affordable*

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