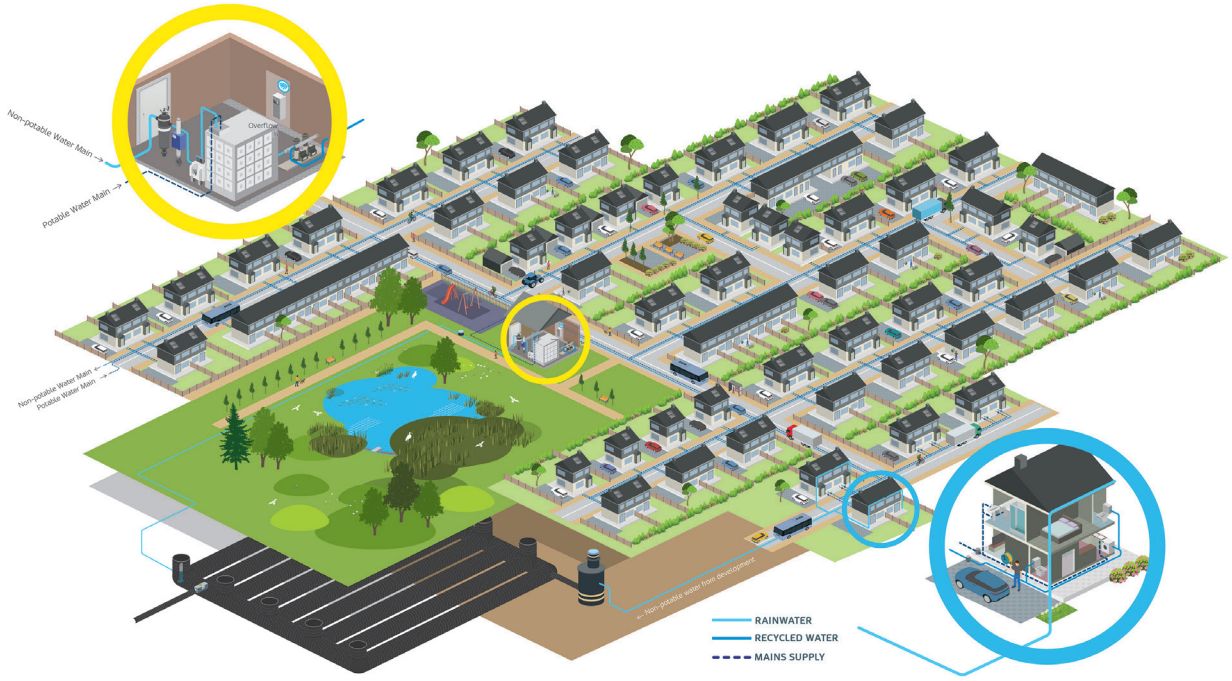
SDS
Water Infrastructure Systems

SDS WATERBANK® COMMUNITY RWM SYSTEM

Intelligent Rainwater Management System

SDS WaterBank® Community Rainwater Management System is a fully automated system which provides an integrated rainwater recycling and delivery platform to enable the distribution of rainwater to all properties on a residential development.

SDS intelligent rainwater management systems feature Intellistorm® automated control which ensures that the tank's capacity is maximised for recycling purposes whilst also accommodating forecasted heavy rainfall in order to protect the sewer system from being overwhelmed.



- *SDS Intellistorm® receives live rainfall forecasts*
- *Variable speed pumping and choice of pump capacity available*
- *SDS SYMBiotIC™-enabled*
- *Tank level gauges and display*
- *Powder-coated steel frame with polypropylene panelling (Control Unit)*
- *Designed in accordance with BS EN 16941-1:2018 requirements*

The system incorporates an Aqua-Swirl® hydrodynamic vortex separator to first remove physical contaminants from the rainwater, that has been collected from the roofs of properties, before storing in a Weholite tank.

Water is pumped on demand, via a break tank and sequence of further filtration devices, that are located in a purpose-built kiosk on the development, to properties for use where mains-supplied drinking water is not required. This might include flushing toilets, supplying a washing machine and outdoor applications such as irrigating the gardens and cleaning a car.

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Features	Benefits
Provides a source of water alongside the mains water supply.	Protects the supply of treated drinking water, particularly beneficial in water-stressed areas. Reduces water supply fees and environmental footprint.
Reuses water that might otherwise have contributed to flooding.	Limits the impact of uncontrolled rainwater on the natural environment and the risk of flooding on the drainage infrastructure.
Live rainfall forecast received in mm/24 hours.	Continuous monitoring of rainfall forecasts ensures any expected changes in weather are accommodated.
Automated calculation of spare capacity for attenuation with programmable safety levels.	Provides control of tank water levels to optimise water reuse efficiency (via predictive weather forecasting).
Releases water into the public sewers before the expected storm event.	Minimises the load on the public sewers during storm events.
Scalable system.	Suitable for use across a large number of residential properties.
Can be partnered with above- and below-ground rainwater storage and Cat 5 water tanks.	Suitable for a diverse range of applications.
WRAS-approved, fail-safe mains back-up with suitable air gap.	Ensures a seamless water supply is achieved by automatically switching to mains water when rainwater is unavailable.
Controller is supplied from a submersible transfer pump located within the rainwater storage tank.	Ensures that the bulk of the stored water is kept in cool conditions, usually underground.
Bespoke booster pump sizes available.	Always supplies the correct volume and pressure of water across the building, whatever the demand.
Low energy pumping.	Reduces running cost and carbon footprint.
Safe-to-fail operation.	System performance is not compromised by power outages.
Optional sub-metering and automated meter reading, including remote volume monitoring, available via SDS SYMBiotIC™ telemetry system.	Provides client with 24/7 access to rainwater harvesting and recycling data, as well as for mains water consumption, via web-based client portal.

SYSTEM SPECIFICATION

Each SDS system is specified to meet the individual needs of the site, including attenuation volume, discharge rate and pumping requirements.

SYSTEM REQUIREMENTS

- *Antenna*
- *Any network ('agnostic') SIM card*
- *Cellular coverage*
- *Subscription contract with SDS for weather information*
- *Power supplies as required*
- *Optional additional battery back-up*

SYSTEM ADOPTION

SDS partner company Albion Water, as the supplier of water utility services to the development, can adopt and maintain the system and thereby fulfil the obligations laid out in Schedule 3 of the Flood & Water Management Act 2010.

RWM DevCom DS/0623

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