

## Case Study

### Aqualate Golf Centre, Newport, Shropshire

SDS enhances golf course sustainability and environmental credentials with intelligent rainwater management



#### SDS Systems

SDS Intellistorm® Smart Rainwater Management System.

#### SDS Customer

Shropshire Council.

#### Client

Aqualate Golf Centre.

#### Project

Smart rainwater management installation and integrated irrigation support at Shropshire-based Golf Centre.

#### Purpose

To enhance irrigation capacity, reduce mains-water dependence, and improve flood resilience of an 80-acre golf facility.

#### Brief to SDS

SDS was asked to provide a system that would capture rainwater from the clubhouse, driving range and maintenance buildings, with which to feed the site's man-made irrigation pond, and supply additional water for the club's compost-tea production – a natural, nutrient-rich liquid used to improve soil health and turf resilience without chemical inputs.

The system should also support the club's sustainability strategy and help mitigate local flood risk both on site and downstream within the River Strine catchment. Commissioned under the River Severn Partnership Advanced Wireless Innovation Region (RSPAWIR) project for Shropshire Council, the system also needed to reduce the rainwater entering the River Strine catchment at rainfall time.

#### Timing

Installation was completed in August 2025.

## Project Background Information

Aqualate Golf Centre is a well-established, community-focused facility located near Newport, Shropshire. Operating year-round, the centre features a 9-hole course with 18 tee positions, a par-69 layout, and a floodlit driving range, attracting thousands of recreational and competitive players annually.

As both a sporting venue and a managed landscape spanning approximately 80 acres, the centre places strong emphasis on sustainable land management and environmental stewardship alongside playability.

Driven by increasingly variable weather conditions and the rising operational cost of relying on mains water, the club sought a modern approach to managing rainfall on site. Its ongoing "Green Tea" strategy emphasises reducing chemical inputs, improving biodiversity and making smarter use of natural resources—all of which depend heavily on more efficient water use.

Working with support from RSPAWIR, Aqualate Golf Centre became the first golf centre in the region to install the Intellistorm® smart rainwater management system, enabling real-time monitoring and predictive control of its water storage.

## Project Objectives

To deliver a reliable, sustainable irrigation water source while improving resilience to both drought and extreme rainfall.

## Project Requirements

The system needed to capture rainwater from the clubhouse and maintenance buildings and connect seamlessly to the on-site irrigation pond, the course's primary water reservoir. It also had to provide a dedicated supply for compost-tea production, supporting the club's natural soil-conditioning programme.

Given periods of intense rainfall, the solution required predictive control — automatically releasing water ahead of storms to create additional storage capacity, reduce surface water build-up and limit flows entering the Strine catchment in line with RSPAWIR objectives.

## SDS Product Features

SDS installed six 5,000-litre Intellistorm® smart tanks. Four supply harvested rainwater directly to the irrigation pond, supporting greens and fairways maintenance, while two are allocated to compost-tea production. Each tank features wireless monitoring, automated level control and forecast-led release capability. This transforms the system from passive storage into active water management, creating capacity ahead of storms and retaining water during dry periods.

Real-time monitoring provides the grounds team with clear visibility of storage levels without manual checks. As the system operates wirelessly, it suits the rural setting without requiring complex infrastructure.

## Issues Overcome

Historically, the club faced the dual challenge of summer dry spells and sudden heavy rainfall, impacting both irrigation reliability and drainage. The predictive release function ensures tanks do not remain full during peak rainfall, providing meaningful flood-mitigation benefit.

By capturing roof runoff early, the system also reduces the speed and volume of water leaving the site, helping protect surrounding land and watercourses while supporting turf health.

The installation integrates smoothly with existing operations and requires minimal maintenance, improving planning confidence for irrigation and compost-tea application.

## Results

The Intellistorm® system has reduced reliance on borehole abstraction and mains supply, lowering operational costs while improving security of supply during dry conditions. Course resilience and turf quality have strengthened through consistent irrigation and enhanced soil treatment.

Predictive water-level management has improved flood resilience by preventing overtopping and reducing pressure on site drainage systems.

The project positions Aqualate Golf Centre as a forward-thinking example of how smart, wireless water management can enhance sustainability, operational efficiency and environmental stewardship across managed recreational landscapes.

**Dan Groome, Centre Manager, Aqualate Golf Centre, said:** *"Managing water across an 80-acre golf course has always been a careful balancing act. We need reliable supplies to keep greens and fairways in top condition during dry spells, while also managing heavy rainfall in a way that protects the course and surrounding environment. With increasingly unpredictable weather patterns, that challenge has only intensified. The Intellistorm® system supplied by SDS has fundamentally changed how we approach it. By giving us greater visibility and control over water capture, storage and reuse, it allows us to respond proactively rather than reactively. We're now better equipped to maintain course quality during drought conditions while managing stormwater responsibly and sustainably."*