SSI Water, Waste and Infrastructure

The SSI Water, Waste and Infrastructure division provides a range of engineering services to regulated utilities, environmental customers, the transportation sector, local authorities and industrial customers with critical infrastructure. Five businesses operate in eight customer focused business units that are renowned specialists in their respective sectors.

Specialist engineering services:

- **G Stow** | borehole engineering
- **Integrated Water Services (IWS)** | mechanical and electrical engineering design, build and maintenance
- **OnSite Pipelines** | specialist civil engineering, pipeline repair and installation
- **OnSite Rail** | specialist trackside civil engineering, land management and drainage services, supported by specialist UV cast in place pipeline lining services
- **OnSite Specialist Maintenance** | leak sealing, water proofing and concrete repairs

Asset management services:

- **Advanced Engineering Solutions** | infrastructure inspection and asset integrity services
- **Hydrosave** | water loss management and network management

Wastewater services

- **OnSite Utility Services** | inspection, monitoring and maintenance of sewerage and drainage networks

UK wide services and international innovation partners

The division, which has over 19 regional depots and offices to operate large numbers of utility-based frameworks, provides services across the UK and Ireland via integrated customer delivery models. With an excellent track record for long-term customer retention, targeted growth is focused in areas with a high technical barrier to entry, where innovative engineering design and build projects, the use of technology and specialist equipment, and a 24/7 service is required.

The division grows year on year, increases its profits and continues to focus on delivering for clients. As well as OnSite being named contractor of the year 2023 in the prestigious Water Industry Awards, IWS Mechanical and Electrical (IWS M&E) and OnSite were jointly recognised for the Best Environmental, Social and Governance Initiative of the Year Award at the 2023 Utility Weekly Awards.

Technology – early adoption and acceleration

The businesses have continued to be the chosen partner for international technology providers to support the development, growth and deployment of products in the UK. This includes smart telemetered systems across water and sewerage networks and, in 2023, Hydrosave successfully trialled valve release technology in the United States of America and agreed a partnership approach for delivery in 2024.

The engineering businesses deliver specialist borehole, civil, mechanical, electrical, control and automation design, build and maintenance projects to UK water companies, the regulated environmental sector and to commercial and industrial customers.

As principal contractors, the health, safety and welfare of employees, customers and the public are of paramount importance to effective service delivery. This is driven through a culture of compliance, combined with openness and freedom of thought for employees to adopt safe systems of work in an ever changing and adapting working environment. Prioritising the management of critical risks and the integration of safety with operational effectiveness has commenced through cultural training programmes.

Specialist engineering

Focused on sustainability and growth in adjacent sectors, the engineering division is well placed to support the development of the UK's low carbon heat networks and growth in the use of ground source heat pumps.

After successful heat network installations at the Eden Project in Cornwall and Swaffham Prior in Cambridgeshire, IWS M&E and OnSite delivered an award-winning low carbon heat network project at the Imperial War Museum (Duxford) in Cambridgeshire.

G Stow's financial performance continued to be positive, with investment in new drilling equipment. Strong performance from the successful completion of several water borehole drilling projects as well as borehole refurbishments, maintenance and relining projects. The team has also been focusing on smaller diameter boreholes linked to the expansion of our heat network proposition.

G STOW PLC

The OnSite Pipelines and Civil Engineering division provides a range of pipeline and associated above- and below-ground civil engineering services to the built environment.

With a core of projects in the water sector, the division offers a range of services including installation, network maintenance, mains rehabilitation, directional drilling and specialist civil engineering. Operating in multiple sectors, the business is focused on customer service, a positive impact on the environment and helping clients achieve industry leading performance.

Within the year the business secured several new frameworks in the water sector, completed several large diameter and major pipeline diversion projects and carried out lead pipe regional replacement programmes for water utilities. Multiple projects were also delivered to commercial and industrial customers and the business has been instrumental in supporting growth for the installation of low carbon heat networks. In a period of rapid expansion, civil engineering expertise has been recruited to the management team and specialist project management software has been mobilised.

OnSite
Pipelines & Civil Engineering

OnSite's Specialist Maintenance division had a further challenging year, with some business restructuring. Encouragingly, with the newer business model, the existing reservoir maintenance and relining contracts are profitable. The business remains an expert specialist offering with a unique range of services including waterproofing, concrete repairs, chemical resistant coatings, ground stabilisation and reservoir repairs.

OnSite Specialist Maintenance

OnSite Utility Services offers specialist wastewater and drainage services, including sewer flow monitoring, rehabilitation, CCTV surveys, sewer lining and specialist cleaning services to the water, rail and highways regulated sectors as well as to local authorities and private customers.

The business also supports the continued maintenance and refurbishment of inland waterways and canal networks across England and Wales. Work for the Canal and River Trust, using PortaDam, our temporary dam system, has been very successful in both planned and reactive situations, proving the use of the product.

The sewer flow team has continued to support several customers with innovative smart network projects including flow measurement, sewer level and early warning flood sensor installation projects. In-house product development and rental of temporary flow monitors, and a system to manage the maintenance and reporting from the monitors, supporting CSO control, sewer design and predictive modelling projects, has continued.

OnSite

OnSite Rail saw the first stable year of growth linked to the end of the Rail regulator's 'Price Control' period. With strong results still achieved in a difficult market, the team is well placed to continue the growth plan in 2024-25, delivering trackside drainage services, large diameter sewer lining projects using UV techniques and management of critical risk direct to Network Rail and to several main contractors in the South-East, Wessex and North London regions and routes. Regional expansion remains a key focus for this division, using transferable skills from within SSI Services and by adding new services.

The sewer lining division had another successful year, achieving an excellent operating profit as a trusted and specialist service delivery framework supplier to several water utilities. Further capital investment into specialist plant and machinery has continued to support the UK programme of trenchless sewer rehabilitation.

Looking forward, OnSite is well placed to support the water sector with its accelerated investment programmes for the end of AMP7 and into AMP8, in sewerage network early warning telemetry flood and overflow systems, proactive condition inspection programmes and new structural lining systems. Growth is also forecasted in the rail sector, with the Canal and River Trust and with new environmental customers

OnSite Rail Services

Asset management services

Hydrosave provides asset management services that support the resilience and quality of the UK water network. 2023/24 was another successful year for growth and margin improvement.

Particular success was achieved on water loss management and leakage detection frameworks carried out across regions in the UK, helping the water sector in its ambition to manage leakage events, reduce water loss and achieve leakage reduction. A technology-led approach and investment in leak detection continues to be adopted on all contracts, using a range of the latest technologies from around the world. These include acoustic, flow and pressure sensors, in-pipe CCTV systems and the analysis of smart networks.

Services also included validating and auditing network boundaries, installation of 4G/5G sensors, assessing customer demand and carrying out trunk mains leak detection surveys. To address the growing percentage of leakage on customer properties, Hydrosave has also developed an expertise for managing and inspecting customer-side water losses.

As the water sector evolves to be more data rich and information led, the businesses have continued to develop their smart networks installation and maintenance teams to service water flow, pressure, transient and water quality sensors across the UK.

Hydrosave
Water Network Efficiency

Advanced Engineering Solutions Ltd (AESL) operates in the water and gas sectors. The water department works closely alongside sister company Hydrosave to offer water utilities a comprehensive set of services to support asset health and management.

The AESL Water department provided forensic non-destructive testing (NDT) and pipeline analysis services to the water sector using patented in-house SmartCAT® technology to measure internal and external corrosion. This included analysis of results from projects in Australia, where a licensed partner also uses SmartCAT®.

AESL Gas services continued to work closely with national suppliers and gas network operators on their key asset infrastructure repair and maintenance, and to demonstrate compliance to the Pressure Systems Safety Regulations (PSSR). Inspection, testing and maintenance of gas assets including inspection traps, water baths and pressure control units, is a critical infrastructure service to the UK gas sector. Within the year, the business successfully retained a number of long-term key frameworks with Northern Gas Networks and Cadent for the inspection and repair of assets that fall within PSSR.

AES
ADVANCED ENGINEERING SOLUTIONS LTD

Looking ahead

The outlook continues to be positive as the businesses within the division work increasingly closer together to support infrastructure owners and operators with their challenges and priorities.

Increasing the number of clients and specialist projects is a key focus area given the current reliance on a few large leak detection contracts in Hydrosave that drive the majority of turnover and the risk that is carried for water sector insourcing. Within the core water sector market, the asset led view of health will be used to drive forward the investment programmes in future price control periods and that will mean innovation and new technologies needed, which our businesses are perfectly placed to support with, help understand then provide a clear route to remediate.

The businesses in the Water, Waste and Infrastructure division will continue to be market leaders in the water and environment sectors and look to develop their client base in adjacent markets where products and services can add value to asset operators and owners. This includes supporting clients' decarbonisation agendas through the division's ground source heat pump and EV charging infrastructure installation services.

Sewer saved by OnSite team

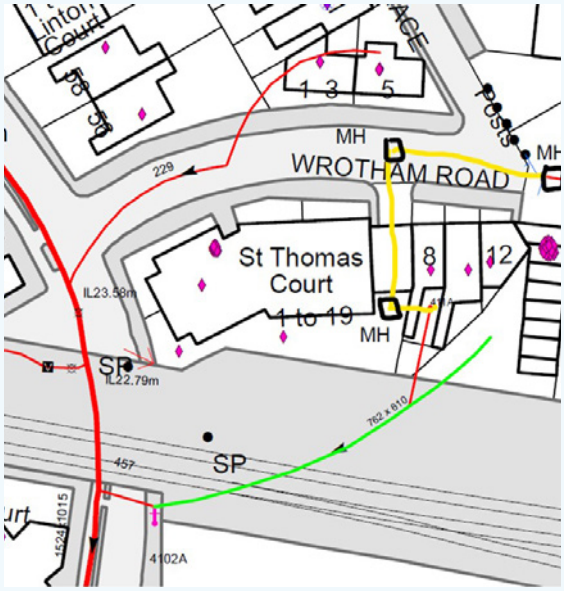
Challenge

Thames Water originally contracted another company to investigate an issue with a sewer pipe. That contractor's solution was to abandon the existing sewer and excavate and relay a new sewer. We wanted to avoid this costly and disruptive scenario, and find a solution to return the sewer to effective operation.

Why us

When Thames Water asked OnSite to take over the project, the initial CCTV survey camera had failed to move more than a couple of metres along the pipe due to water levels.

As the sewer pipe had a change in diameter, there was a step between the 750mm brick and 300mm sewer. The survey camera could not move up the step when surveying from the downstream end, so the initial CCTV survey was conducted upstream. Because of the water levels, the survey was abandoned with the assumption there was a blockage caused by a collapse within the pipe.



The OnSite team completed the survey again. Upon lifting the manhole in the rear of a resident's garden, it was clear the sewer was full of fatty deposits. After cleaning the pipe, the water level dropped, showing that water was getting away through the sewer.

The team could then pull the camera through to survey the entire pipe and concluded the original solution of abandoning the sewer to excavate and relay a new sewer was not necessary, and an alternative solution could prevent the need to dig up the road and cause disruption.

What we did

Our solution was to slip line the defective pipe to maintain the original asset, with a new manhole at the point the sewer split off. This would provide access to the sewer outside of a resident's garden to prevent future disruption.

The trenchless method of repair provided a cost saving for the client and a reduction in the time needed to complete the work.

From the outset, OnSite's team carefully considered the impact of the project on the local community. Letters were sent to local residents to inform them of the upcoming works and road closures, with advanced warning signs displayed on affected roads. The road was planned to be closed for five days over the three-week project period. However, the team was able to reopen the road after just three days, two days earlier than expected.

OnSite's solution minimised the impact on the local community and other road users in the area and avoided the need for multiple closures to be in place for the duration of the project, meaning no impact on the rail infrastructure or other highways in the area. It also avoided excavation work noise in a highly built-up area.

Outcome

OnSite's solution meant there was less time on site and less waste generated – just one grab lorry of spoil was removed. The original solution could have been ten times this amount. This resulted in reduced carbon emissions for the project. The construction phase took just three weeks to complete.

South Staffordshire Plc

To help create a world where essential services and infrastructure deliver for customers, clients and our planet

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