

SYLWRAP Case Study

Fire Station Reinforce Corroded Steel Pipe

A six metre section of 150mm steel pipe with two elbow bends at a fire station pumping house is reinforced before corrosion could breach the line



The steel pipe was badly corroded, especially in its lower sections beneath the surface of the reservoir



There were two elbow bends in the line, providing a difficult geometry for wrapping around



SylWrap HD applied to one of the elbow bends



Completed reinforcement of the upper section of pipe



SylWrap HD successfully applied to the lower section

Defect

The pipe brought water from a reservoir on the lower levels of the pumping house to the upper levels, where it was needed for different operations.

Heavy corrosion had weakened the pipe over many years, especially the section submerged in water beneath the surface of the reservoir. It was now only a matter of time before the line was breached.

With the station facing an uncertain future, repairing or replacing the pipe once it started leaking would have been a waste of money. The station instead sought to reinforce the line before the problem went that far.

Solution

Starting from the upper level and working down, **SylWrap HD Pipe Repair Bandage** was wrapped along the entire six metre length of pipework.

SylWrap easily moulded around the complex shape of the line and could be applied effectively underwater. This enabled it to reinforce both the elbow bends and the section of pipe passing through the reservoir.

Once cured, SylWrap formed a rock hard shell around the entire pipe. It protected the line from external corrosion and would contain pipe content in the event of an internal breach.

Result

Reinforcement of the line was completed in under two hours by the fire station staff with no requirement for training or specialist equipment.

Extending the lifespan of the pipe enabled it to continue serving the station until such time as a decision was made on the future of the site.