



## SAFER, GREENER INSTALLATION USING NEW COILED PIPE INNOVATION

### REMOVING THE DANGER OF STORED ENERGY IN A COILED PIPE

The safety of our people and the public is of paramount importance to Morrison Water Services (MWS), a part of M Group Services' Water Division.

With this in mind, Morrison Water Services, working with our partners Andrew Turner Inventions and InnoFlow, has piloted an innovative pipeline installation technique which protects employee safety as well as increasing efficiency.

The installation of large-coiled HDPE pipe has historically posed a significant health and safety risk in the industry with incidents of bruising, lacerations, lost teeth, broken jaws and even a near fatality being reported. Although the potential risk is with larger 180mm coiled pipe, the problem can persist on smaller coil sizes too.

The risk comes from the energy stored in the coiled pipe being released as it is unwound, causing unexpected movements or 'whipping up', with the potential to cause injury to operatives or members of the public. This risk is exacerbated if the trailer is not tethered securely.

These issues have led to many companies banning the use of large diameter coiled pipe in favour of 'stick' installation methods. Stick installation uses pre-formed, rigid 'sticks' of pipe in small lengths of around six metres.

While this methodology is operationally safer, stick installation requires more excavation, takes longer to complete, and increases the risk of failure as the sections require welding together to form continuous pipework.

Morrison Water Services, recognising these issues, has looked to our supply chain to find an innovative way to mitigate the risk to our people and the public.

**LaySAFE**®  
by **InnoFlow**

#### COLLABORATION

LAYSAFE®

#### CLIENT

DŴR CYMRU WELSH WATER

#### LOCATION

WALES

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FOR MORE INFORMATION

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Delivering what we promise

## A SAFER, GREENER AND MORE COST-EFFECTIVE SOLUTION

Morrison Water Services collaborated with Innoflow to understand how their LaySAFE® trailer could be effective in reducing the health and safety risk for our people. We were also keen to understand how it could help our performance in other areas, particularly through a reduction in excavations and improved efficiency.

LaySAFE® is currently offered as a retrofit for existing trailers and lays pipe of diameters ranging from 120mm up to 180mm. Looking to the future, Innoflow are working with trailer manufacturers and looking to offer a pipe trailer with LaySAFE® built in from 2023.

The system works by feeding the pipe through a special box at the rear of the trailer which completely removes the stored energy and leaves the pipe in an inert, safe state.

MWS completed a three-week trial of the system with our client Dŵr Cymru Welsh Water focusing on the use of unchlorinated pipe. Throughout the trial, the benefits became evident with significant reductions to health and safety risk, cost, and installation time.

While the trial was using unchlorinated pipe, it was observed that using LaySAFE® with chlorinated pipe could lead to even greater benefits.

## BETTER FOR OUR PEOPLE

- All dangerous stored energy is removed from pipe, eliminating the health and safety risk for our people and members of the public.
- The pipe is held stable on the coil trailer and feeds directly to the floor reducing the amount of manual handling and lifting for operatives.

## BETTER FOR THE ENVIRONMENT

- Faster installation, leading to less time on site, resulting in a reduction in CO2 emissions.
- Reduction in excavations. LaySAFE® can facilitate drawing pipe as an insert into existing pipe or through directional drill installation, keeping environmental impact to a minimum.
- Significant reduction in the number of welds needed, further lowering the carbon impact of the works.
- LaySAFE® can also feed newly installed pipes under existing services, minimising the potential for utility damages.

## BETTER FOR CLIENTS

- Using coiled pipe with LaySAFE® is faster than stick installation methods ensuring program deadlines are much more likely to be achieved.
- Any required connection work can be completed more quickly, reducing disruption to customers and traffic.
- Elimination of potential ovalisation of the pipe, guaranteeing a high-quality installation.
- Cost efficiencies from faster installation compared with the use of sticks.
- Significant reduction in the number of welded joints reducing the potential for leaks in future.
- Fewer excavations means backfill and reinstatement activities can be completed more quickly, improving customer satisfaction.



**“The trailer and LaySAFE® were absolutely perfect for use of 180mm coil pipe. It pulled the large pipe off straight from the trailer and it laid perfectly straight which made connections easy to do. It was impressive.”**

### **CRAIG TOOZE**

PROJECT MANAGER  
MORRISON WATER SERVICES