



Application Drinking Water
Client South East Water
Contractor Clancy Docwra
Product 500mm Excel pipe in SDR11
Date 2010

CASE STUDY INFORMATION

DIRECTIONAL DRILLING IN MAIDENHEAD

South East Water used Excel pipes to reduce environmental and social impact of the new water pipeline installation through the heart of Maidenhead's Town Moor.

Rich with wildlife, popular with visitors and close to the town centre, the site presented an interesting challenge to the contractor Clancy Docwra. Not only did they have to minimize impact on the surrounding area, they also had to return the Moor to its recreational use as quickly as possible, in time for the town's major public event in August.

As the pipeline had to cross the Moor's waterside in three areas, directional drilling was chosen as the optimal technique to prevent disturbance to its wetland habitat and species. Minimal disturbance was achieved by digging a pit at each end of the pipe section and boring horizontally underground with a removable drill head matched to soil conditions and a series of drill stems to push and rotate the head.

Pipes used in directional drilling must meet exceptional demands, as they may be pulled through underground tunnels over considerable distances. South East Water took advantage of Excel (PE100) high performance polyethylene pipe manufactured by GPS PE Pipe Systems. With its outstanding resistance to rapid crack propagation, long term stress cracking and corrosion, Excel has proven to withstand the heavy loads associated with directional drilling. In total 660m of butt-fused 500mm pipe in SDR17 and SDR11 was supplied to complete the work.



With the watercourse left undisturbed and less disruption to visitors, the work was completed within the programmed timescales and all parties were satisfied with the outcome. Installed by open-cut in the 'dry' sections of the pipework, Excel reduced the installation time through its ability to be 'snaked' into the trenches, as flexible pipe strings welded from multiple 12m lengths. The directional drilling method also saved time, being about 25% quicker than full trenching, in those sections where it was used.



The new £2.3 million pipeline forms part of the wider £390 million five-year infrastructure programme by South East Water to secure future water supplies. Its completion will see an extra 2.5 million litres of water transferred from a nearby water treatment works into Maidenhead's water supply network.