



Case Study: Trimpley to Hollywaste Strategic Trunk Main Scheme for Severn Trent Water

Background

Enterprise has worked in partnership with Severn Trent Water (STW) since 1997. It has a strong track record in utility network maintenance. STW has been a valued customer for a number of years, during which time Enterprise has developed a strong partnership with a customer focused approach.

As part of the AMP4 Water Mains Rehabilitation framework contract we were asked to install a segment of strategic trunk main (4400m of 400mm-500mm) from Trimpley Water Treatment Works (WTW) to Hollywaste Service Reservoir.

Initial Situation

Trimpley WTW feeds water into South Shropshire and North Worcestershire through a rural supply main. Hollywaste Reservoir is the strategic reservoir at the end of the rural main. It supplies the Ludlow area to the west and backfeeds the Trimpley Rural Supply main to the east.

It was becoming increasingly difficult to maintain acceptable water levels in Hollywaste Reservoir during hot weather periods when water demand increase.

Key Customer Requirements

STW required a large cross country trunk main to alleviate the hot weather supply problems. The works required a rapid mobilisation to lay the trunk main through very sensitive Sites of Special Scientific Interest (SSSIs). This raised a number of archaeological and

environmental challenges. As a result, traffic had to be diverted, with routes often being several miles long. This meant a sensitive approach towards community liaison was essential.

4km of this scheme had been constructed adjacent to a main arterial road into Birmingham and the density of existing services ruled out the option to utilise trenchless techniques. The work affected a high number of businesses and other properties such as schools. This required a high level of communication with all stakeholders to ensure they were consulted fully.

One of the most challenging aspects of the project was the requirement for 350 metres of directional drilling. This was to facilitate the requirement for two road crossings and two rivers. One river was crossed by directional drilling and the other one by damming and overpumping the river to allow an open cut crossing. This posed a lot of risk to the workforce and required extensive planning and Health and Safety assessments to ensure that working conditions were safe at all times.

Challenges to be taken into consideration included:

- Local Planning Authorities regulations
- Access to private land and road closures
- Environmental issues
- Unfavourable ground conditions
- Increase surge protection capacity requirement

Our Response

During construction, communication between teams was critical. We used direct one-to-one communication, regular tool box talks, formal briefings and training. The scheme was measured against the initial resourced programme, estimates and Key Performance Indicators (KPI).

Regular reviews were held with all employees and contractors and action plans were put in place to ensure the project remained on schedule throughout.

By conducting project specific risk registers we identified the risks associated with the programme delivery before beginning. Early identification of possible risks through a process based on 'eliminate, reduce or control' ensured that the programme was delivered effectively and efficiently.

Health and Safety considerations were a major factor in the planning of the work due to the challenging circumstances i.e. working in agriculture and woodland, during the winter months and on steep hills.

Achievements

With Enterprise's operational and management expertise we were able to provide STW with rapid mobilisation, effective handling of customer and sensitive local issues as well as delivering the project on time and to cost.

The success of our part of the project led to STW asking us to be involved with the rest of the projects led by the other two contractors'. This involved a further 10 km of 400mm – 500mm of strategic main laying. We successfully collaborated with the other contractors' to ensure that the overall project was delivered within the allocated budget.

Summary

This complex project displays our capability to work on large capital schemes, in sensitive areas, under extreme conditions and with the following stakeholders involved in the project:

- Local Authorities
- Environmental Agencies (DEFRA / English Nature)
- Highway Authorities
- Councils
- Other contractor's
- Our customer
- The local community



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