



SPECIALIST SKILLS

Project:
Queen Mary Reservoir

Location:
West London

Barhale Business Unit:
Tunnelling

Client:
Thames Water

Value:
£5.34m

Barhale provided a solution to reduce reservoir level in an emergency by providing a twin-pipeline linked to vacuum pumps to give level reduction by 0.75m / 24 hours at a discharge of 24m³/second.

A) Delivery of marine works in the marine environment

The project involved the construction of a twin 1600 pipeline 350m long and associated M & E works to provide a vacuum suction system to draw water from the reservoir into a discharge aqueduct in the event of an emergency situation. The project was the first of its kind attempted in the UK and close liaison with the design team and clients operations team was requested at all times.

B) Extend and evolve inherited design solutions/adding value

The project team developed solutions to minimize the disruption from the outlet into the existing aqueduct. The contractor designed the M & E systems to charge and control the vacuum systems to satisfy the operational criteria while the procurement department sourced a variety of materials from the EU to gain best value for the project as a whole.

C) Environmentally Sensitive Considerations

The project involved working within a line raw water provisions reservoir that had to maintain normal operation at all times thus pollution prevention was a

fundamental requirement of the project. The outfall to the aqueduct ran through a section of protected wetlands to overcome this extensive discussion and methodology was progressed with the EA to derive an acceptable method of operation equitable to all.

D) Working on line facilities/Decision & Construction process modified to minimize operational impact

To minimize the overall disruption to the line reservoir a remote fabrication yard was secured and developed sop that the 'wet side' pipeworks could be fabricated without disruption. Close liaison with the clients operations team ensured a smooth, problem free installation.

E) Working in close proximity to other contractors and suppliers/ Managing Interfaces/ Co-ordination

The works had to be installed beneath HV overhead cables and above major gas and oil distribution lines. A co-ordination team was established and regular planning/progress meetings were held during the planning and currency of the project.