



Rye Meads STW

Careful Planning and Implementation

End User: Thames Water
Client: Thames Water
Project Value: £120,000
Contract Duration: 6 Weeks

GEL Expertise:

The project demonstrated **GEL's** expertise in:

- Planning & Project Management
- Innovative solutions to complex problems
- Confined space entries
- Design and fabrication of bespoke Cofferdams in **GEL** workshop.
- Complex lifts
- Mechanical installation



Photo 1: Cofferdams before installation

Scope:

The Client required several FST chamber valves that needed repairing or replacing to allow isolation for the future works of overhauling the FST tank. This was a difficult task as the chambers could not be drained and access to the valves was therefore restricted. **GEL** offered a multitude of solutions to the Client.



Photo 2: installation of Cofferdams



gelengineering

Imagine • Innovate • Implement

Solution:

Gel Engineering envisioned and innovated an idea, to design and fabricate a set of Cofferdams. These Cofferdams would be lowered into position creating a sealed, fully watertight area to allow the **GEL** team to have a safe temporary work area; to investigate and carry out any necessary improvements. Once entry to the chamber was achieved and the inspection was carried out it was revealed the problem was not the one which was originally suspected.

The valve was in fact in perfect working condition; however, the screw shaft the valve was attached to had become disconnected. **GEL** carried out a repair on the shaft and replaced the locating nut and serviced the shaft. An overhaul was carried out on the valve which operates the penstock valve, and a locating nut was placed at the top end of the shaft.

Gel Engineering's flexibility and unique holistic approach allowed the team to look beyond the scope and adapt to find a long-term solution, which will prevent the fault from reoccurring.



Photo 3: Cofferdam in situ

Client Engagement:

Gel Engineering always ensure the Client is continually engaged and updated in any evolving elements to the project. In the initial stages **GEL** like to ensure they always give the Client multiple options so that solution fits the Client's needs.