



SPECIALIST SKILLS

Project:
Lower Hall B
M&E Modifications

Location:
Chingford, London

Barhale Business Unit:
Process

Client:
Thames Water

Value:
£1.00m

Improvement works to a key asset in London's water supply network including the replacement of pumps, generators, MCC and control unit together with all ancillary equipment and electrical connections. All procurement, installation and commissioning processes were managed by Barhale.

The Lower Hall B pumping station pumps potable water from the Coppermills Water Treatment works to the covered Sewardstone Reservoir in North London for onward distribution to Thames Water customers. This is a key part of the London water supply network and therefore the maintenance of full capacity during the works was essential. Barhale achieved this by progressively replacing individual pumps during limited shut-down periods and by using temporary power supplies.

Barhale delivered the entire project with minimal disruption to normal plant operation thereby assuring water supply was maintained to 125,000 consumers.

The scope of works included substantial M&E modifications and upgrading comprising:

- Replacement of three existing fixed speed centrifugal pumps with variable speed pumps of an increased duty and the replacement of suction and delivery pipe work at each. Pump ratings 10 – 40MLD at

22m head.

- Replacement of an existing generator with a new unit incorporating automatic start on power failure facility together with power supply synchronisation for power generation under Triad conditions.
- Replacement of the existing MCC with a unit to meet current regulations.
- Installation of a new control system and electrical connections between the new MCC and other components.
- Removal and disposal of redundant equipment, including pumps, pipe work, generator, and a redundant hydraulic cabinet.
- Installation of a magflow meter on 42" main with all associated ducts.
- Installation of a verification flow meter and chamber.
- Refurbishment of the kitchen and toilets at the pumping station.
- The installation of a new GRP kiosk at Sewardstone Reservoir housing a new control board to transfer existing flowmeter and reservoir levels, using telemetry interconnections, to the Lower Hall B pumping station.