

Johnson St. CSO & Temporary Pumping Station

Project Summary

Retroflo were engaged by **Esh/Stantec** (supported by NWG) to deliver M&E design, installation, and commissioning of a temporary pumping station and a permanent CSO. The permanent installation included mechanical screens, an actuated penstock, associated instrumentation, telemetry, and a new control panel. The scheme won the ICE Robert Stephenson Award in the Large Category in March 2023.

Scope of Works

Retroflo provided a full end-to-end service, including:

- Phase 1 – Temporary Pumping Station: walk-in kiosk housing NWG E0104 specification motor control centre, three 15 kW VFD operated pumps, instrumentation and telemetry outstation, temporary standby generator with automatic changeover, 350 mm & 300 mm ductile iron pipework, associated valves, 630 mm MDPE rising main
- Phase 2 – CSO: new GRP kiosk, CSO control panel, actuated penstock, associated instrumentation and telemetry outstation
- Mechanical and electrical design, installation and commissioning for both phases

Results

- ✓ Strengthened Gateshead sewer network resilience
- ✓ Repurposed MCC delivering added long-term value
- ✓ Fully integrated CSO with compliant screening & controls

Project Details

Client

Esh/Stantec

Project Value

£5,000,000 (estimated)

Project Highlights

Flexible Infrastructure

The temporary pumping station, complete with MCC, pumps, pipework, generator and telemetry, was successfully decommissioned post-enabling works, and the MCC was repurposed for long-term use at Esh Winning SPS.

Award-Winning Delivery

The project was recognised with the ICE Robert Stephenson Award (Large Category, March 2023), highlighting excellence in collaboration and engineering.

Permanent CSO Installation

Featuring mechanical screening, actuated penstock, GRP kiosk, advanced control panel, and integrated telemetry for reliable, compliant operation.

Need Help With a Water Infrastructure Project?

Contact us today to discuss how Retroflo can support your next upgrade.



Why Choose Retroflo?

With extensive experience in the water industry, Retroflo is a trusted delivery partner for complex electrical, mechanical and ICA upgrades. Our integrated approach ensures every component, from pumps to PLCs, is designed, installed and commissioned for long-term reliability and performance.

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