



Howley Energy & Water Limited

CASE STUDY – ROYAL BOROUGH OF GREENWICH COUNCIL – SOCIAL HOUSING ESTATE 2022

In 2018, Howley Energy & Water Ltd were appointed by the client team to undertake an initial feasibility assessment towards the development of an open loop borehole system at the council owned residential buildings in Greenwich, South East London.

The assessment identified two horizons within the sub-strata where groundwater would be held. After generating the design in 2019, drilling was initiated to test the shallow River Terrace Gravels deposits first. Since the boreholes were to be installed in the garden area of the buildings and the residents would still occupy them, the client was particularly keen to understand the impact that the drilling operation would have from both the visual and noise perspective.



All details regarding the drilling operations were communicated to the residents via the council team to their satisfaction.

It was clear however from initial pumping tests that the River Terrace Gravels were not able to sustain the flows demanded by the 440kW system so the alternative option was implemented and the boreholes were deepened to 105m to penetrate the Upper Chalk. Test pumping carried out in March 2021 proved the expected yields with an easily achievable

flow rate of 20 l/sec – enough to service the heating loads.



Work on the site was delayed by the Covid-19 impact but drilling of the second borehole was underway in September 2021 and the system was commissioned earlier in 2023.

Client	Greenwich Council
Location	Greenwich, London
Peak Heating kW	440
Peak Cooling kW	0
River Flow Rate	0
Groundwater Flow Rate	20l/sec
Borehole configuration	1 ABS – 1 RCH
Borehole distance	80m
Year Installed	2022