

GROUNDWATER CAPTURE ARRAY TO PROTECT A PUBLIC WATER SUPPLY WELL HIGH WYCOMBE

CLIENT INLAND HOMES PLC | **DURATION** 10 MONTHS | **VALUE** £220,000

PROJECT INVOLVEMENT

DESIGN OF A GROUNDWATER CAPTURE SYSTEM, DRILLING OF CHALK ABSTRACTION AND ALLUVIAL MONITORING WELLS, INSTALLATION AND COMMISSIONING OF WATER TREATMENT SYSTEM, DESIGN AND COMPLETION OF PUMPING TESTS.

INTRODUCTION

Project Dewatering Ltd (PDL) were invited, by Inland Homes Plc, to submit a proposal for the control of potential groundwater migration from a contaminated site (a former gasworks) undergoing redevelopment. The requirement was to prevent any possible impact to a Thames Water public water supply well located 800 m to the east, during the course of groundworks and piling for the construction a luxury apartment complex. The Thames Water well abstracts water from the chalk aquifer, which also underlies the site at depth.

THE WORKS

The system proposed by PDL comprised an array of 10 no. chalk abstraction wells to 30 m bgl, combined with 10 no. monitoring wells, installed in the near surface alluvial geology, to a depth of 8 m. In addition, the water treatment system included a control system, an automated backwashing sand filtration unit and 4 large activated carbon filtration vessels. The system was designed such that, in the event that the groundworks caused the mobilisation of historic gasworks contamination to groundwater within the underlying chalk aquifer, the system would abstract groundwater from the downgradient array of abstraction wells, preventing offsite migration of contaminated groundwater towards the Thames Water well. The abstracted water would be filtered prior to discharge to sewer under a consent.

The system was installed in December 2017 over a 2 week period and remained activated until mid August 2018.



**PROJECT
DEWATERING**

A HÖLSCHER WASSERBAU COMPANY

EXTRACT | MONITOR | CONTROL

Call us now on **01473 658807** or email us at **enquiries@project-dewatering.co.uk**

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