



London Groundwater Survey

THE TASK

Groundwater levels are rising in the deep aquifers beneath London. The issue was first highlighted by the publication of CIRIA Special Publication 69, "The Engineering Implications of rising groundwater levels in the deep aquifer beneath London" in 1989. LUL will be one of the first organisations to be affected by the problems.

LUL took a member of TPS's Geotechnics section on secondment to establish and direct a rising groundwater research project. Its aim was to identify and quantify the various threats posed by the rising water to LUL's infrastructure and produce costed strategies for managing or controlling these threats.

Some of the activities undertaken included:

- A thorough review and reappraisal of groundwater chemical variation and flow under London.
- Geotechnical finite element analysis of the effects of ground movements.
- Construction of chalk water level observation boreholes.
- A large scale pumping trial in south London.
- Collation of data on the detailed geological location of LUL shafts and tunnels.
- Establishment of a detailed risk classification schemes for LUL structures.

CLIENT

Transport for London

PROJECT VALUE

£500k

SERVICES

- Geotechnical Research