



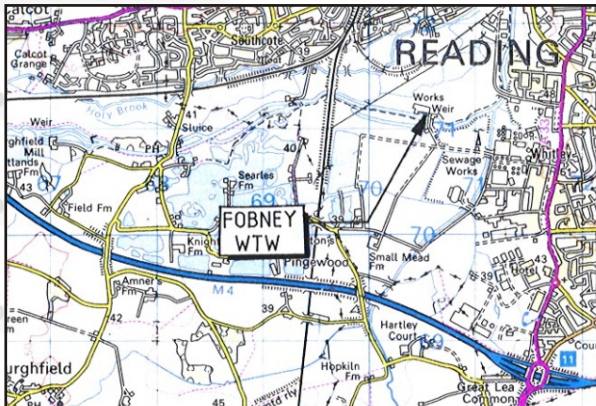
## PROJECTS

## HYDROGEOLOGY

Hydro 3

### THAMES WATER UTILITIES

Evaluation of Prospects for an Emergency Groundwater Public Water Supply at Fobney, UK



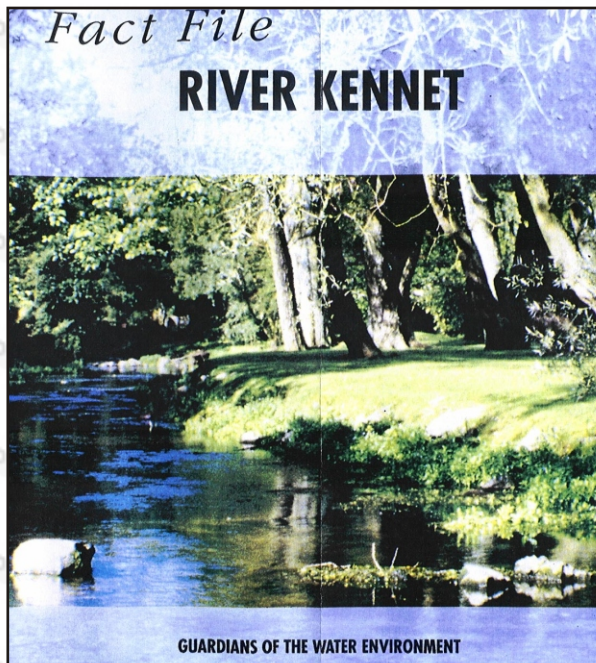
Part map courtesy of Ordnance Survey

A hydrological & hydrogeological review was undertaken of the potential to establish an emergency groundwater PWS source at the Fobney Water Treatment Works in Reading, UK.

Drinking water in Reading is provided from a surface water treatment works on the River Kennet. A catchment risk assessment was undertaken of existing industry, waste disposal and pollution incidents incorporating a land-use survey within the catchment, together with hydrological modelling of a range of identified spillage scenarios to determine the risk to the water supply. The risk to the surface water PWS from more than 1100 industrial sources was characterised as significant.

Groundwater quality was investigated through a sampling exercise of available bores within a 20-kilometre radius. The potential threats to groundwater quality from historical land-use, landfill operations and industrial development was assessed through archival data and site inspections.

The hydrogeological locality comprised the transition between unconfined/confined conditions. Aquifer characteristics were examined from existing investigation data.



Part pamphlet courtesy of NRA/EPA

Potential interference to and from existing licensed groundwater abstractions was examined, and the most prospective site for resource development was identified.

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