



## PRIVATE WATER SUPPLIES – CASE STUDY 2012/7

### **Risk to a domestic water supply from another supply used for non- domestic purposes on a commercial premises**

A consumer called their water company in February to report that their tap water was cloudy and discoloured in appearance. The water company gave general advice about the causes of aeration and discolouration; however, a week later the consumer reported the problem again. When samples were collected two days later the water was cloudy, but it was free from any abnormal taste or odour and the level of residual chlorine was normal. After a further week the consumer reported that her daughter had fallen ill and the cloudy water problem was still occurring. At this stage a wider network investigation was initiated and this found that two weeks earlier a nearby haulage yard had begun to operate a newly sunk borehole, to service vehicle washing equipment. The borehole supply had been connected directly to the main supply pipe on the premises. When vehicle washing was underway, the borehole pumps would be switched on to feed the pressure washer, which was attached via a hose connected to the outside tap on the premises. There was no backflow protection at the borehole connection, therefore, when the borehole pumps operated the pressure was sufficient to force borehole water into the wider mains public supply.

The borehole supply was used for non-domestic purposes, therefore it fell outside of the scope of the private supply regulations and when checked it was found not to be wholesome. Samples contained coliform bacteria and also exceeded the standards for aluminium, manganese, nickel, trichloroethene and turbidity. The cross connection was removed and the company that drilled the borehole and constructed the supply was prosecuted by the water company under the fittings regulations. The court found the company guilty and in addition to receiving a fine, they were required to pay the water company's costs.

This case study illustrates why local authorities and water companies should not disregard private borehole supplies that are used for non-domestic purposes. These unregulated supplies tend to first come to light when a consumer experiences and reports an unusual, intermittent water quality problem with a regulated, public or private water supply. It is important therefore that the protocols of water companies and local authorities train and empower the first responder to such complaints to ask wider questions about any recent construction activities in the neighbourhood. Such questions often yield more diagnostic information than sampling. The Inspectorate's most recent risk assessment tool issued to local authorities in July contains questions prompting local authorities to ask about and record any unusual or intermittent water quality problems observed by users of a private supply. The operation of the water supply arrangements on any site may not be



readily evident during a site visit therefore consumer observations and experiences can often be the first or only clue that all is not as it seems.

*Both water companies and local authorities need to be alert to the growing trend for commercial premises owners with a mains supply to develop other water resources for cost saving or environmental reasons, with little or no appreciation of the risks this can pose to themselves and others in the neighbourhood. Where sites have multiple sources (mains, borehole, rainwater collection systems, springs or grey water recycling systems) questions must be asked about how the premises owner manages each of these different sources. Water companies should ensure such premises are identified, classified under the fittings regulations as high risk and inspected regularly. Local authorities have an important part to play in this by sharing local knowledge with water companies, for example, in relation to planning applications. When carrying out private supply risk assessments, local authorities should explain to managers of private supplies that good record keeping and investigations of user reports of an unusual taste, smell or appearance is a feature of a well run supply in which the local authority can have confidence, enabling discretion to be exercised about the frequency and scope of future sampling, thereby reducing the supply owner's costs.*

