



PRIVATE WATER SUPPLIES – CASE STUDY 2013/18

Private supplies require active management to ensure they are safe

This case study concerns a private supply serving a premises used by a charity for the provision of children's adventure holidays. When the charity purchased the property it was registered as a private supply to a single domestic dwelling and no enquiries were made about the water supply, therefore it was not appreciated that the previous occupier had had no regard for the water quality. After the sale and during renovation works the charity became very concerned when the water supply turned brown in colour after heavy rainfall.

The charity contacted the local authority and was, quote, 'horrified' by the findings of the subsequent risk assessment, which confirmed that the source was a boggy area located on the steep hillside above the property that was contaminated with animal faeces and frogs. When rain flowed across the land into a collection chamber it carried faecal matter with it into the tank. This was verified by failed microbiological samples. In light of this, the charity decided to develop an alternative borehole supply.

A specialist water contractor was engaged to design and install a treatment system that met the specific challenges of the newly drilled borehole water quality. The treatment comprised iron and manganese removal, pH adjustment, filtration and UV disinfection. The charity also arranged with another contractor for an annual inspection and maintenance contract.

The charity's site manager was provided with instructions for the operation of the treatment system, but over time she became concerned that the treatment system might not be functioning correctly. In particular, she noted that they were using half the amount of chemicals compared to the quantity used in the previous year. The installers were contacted and they identified that the backwash frequency had been set incorrectly during the previous annual service. After this, the manager of the site introduced a checklist for staff to use to determine that the system was operating correctly on a day-to-day basis.

This case study illustrates that private supplies require to be actively managed if they are to provide a safe supply at all times. Premises owners must appreciate that water treatment is not 'fit and forget' and those who provide water treatment equipment and services should include operator training and logbooks with check lists. Relatively simple advice and guidance will ensure that potential problems are quickly identified enabling specialist service providers to be called out when required, not just on an annual basis. *The Inspectorate's risk assessment tool puts emphasis on the importance of active management arrangements and the Inspectorate recommends that local authorities should regard the absence of a regime of regular appropriate checks as a risk that requires mitigation.*