



PRIVATE WATER SUPPLIES – CASE STUDY 2019/05

Classification of an historic private supply

This case study relates to a supply of water that is derived from an historic holy well which is a scheduled grade 1 historic monument. The earliest confirmed record of the site dates to 1138, although it is believed to be much older. It is steeped in legend and tells of a spring that arose from the ground at the spot where a virgin martyr's head fell. It is believed that this site has been in continuous use as a place of Christian pilgrimage for thirteen centuries, making it the oldest such site in continuous use in the UK. The site is owned by the county council, but an agreement is in place for its use by diocesan trustees. The Welsh Government's historic environment service (CADW) are responsible for the ancient monument status and assesses any alterations to the site's infrastructure to preserve the status.

The site attracts significant numbers of pilgrims and tourists and traditionally supplied water to pilgrims to consume at a hand pumped drinking water tap, as well as providing an historic stone pool in which pilgrims can immerse themselves to enjoy the alleged healing properties of the water. The well and pool are known to be supplied by the drainage water from a mine drainage adit. The adit collects water from the area with inputs from the old lead and silver mines before eventually discharging into a local watercourse. The operators of the site reported in February 2019 that turbidity increases substantially in the bathing pool after it rains. The whole site is vulnerable to ingress because of the 'cut and cover' nature of the culvert, the steep catchment it drains into and the location of the tanks feeding the attraction. The elderly nature of the tanks and supply mains adds to the complexity of the site's management and schedule 1 designation.

The first risk assessment of this supply was carried out in December 2018 by the local council. Routes of ingress by vermin and surface water existed due to the piping arrangements, and tanks were open to the elements. In addition to the microbiological risks that these hazards present, the water exhibited a range of other natural characteristics making it unwholesome: Lead (>32 µg/l) iron (>1,840 µg/l), aluminium >1,990 µg/l, turbidity (37.7NTU). To mitigate the microbiological risks by disinfection requires the turbidity associated with the iron and aluminium to be reduced substantively so that any disinfection that is installed is effective.

Given that the water offered to consumers was historically, in part, intended for the purposes of human consumption as part of a public activity, the supply was, at the time the Private Water Supplies (Wales) Regulations were implemented in 2010, subject to the requirements of regulation 9 of the regulations (the regulations have since been revised in 2017).

Inspectors first visited the site with the local authority in February 2019 and established that they had served a Water Industry Act 1991 Section 80 Notice on relevant persons following samples, which confirmed microbiological contamination and lead concentrations above the regulatory standard. The notice outlined measures to be taken to protect the sufficiency and wholesomeness of the supply, including adequate treatment. A temporary sign had also been fixed to the water tap adjacent to the pool requesting visitors not to “drink or ingest the water,” as part of the mitigation. This was presumed to be a short-term measure whilst longer term treatment had been completed.

The Inspectorate carried out a follow up site visit in November 2019 to review progress with actions to meet the notice stipulations. It was found that since April 2019 remedial works had been undertaken on both the take-off from the cut and cover culvert stream to the bathing pool to improve water quality. Furthermore, the hand pump had been permanently removed and the signage at the point at which visitors could draw water had been improved and was now a permanent fixture, thus preventing any consumption from the tap going forward. An inline multiple cartridge treatment system has also been installed to treat the water used in the pool for spiritual bathing.

Part of the reason for this visit was to provide clarity around the classification of this supply in view of the completion of these measures. The local authority were advised that the usage of the pool for spiritual/healing purposes did not constitute a domestic purpose in the context of the definition specified in regulation 3 of the Regulations, i.e. it was not used for drinking, cooking, food preparation or other domestic purposes (as defined in The Water Industry Act 1991, which includes sanitary purposes). If the supply is therefore not used for any such purpose it was no longer within scope of the Regulations, although the quality of the water used for the specific type of public activities in the pool would likely require monitoring under different legislation, such as those applied to swimming pools.

This case study illustrates the confusion that can arise over the classification of private water supplies when considering its usage, and when a supply is used for more than one purpose, or where circumstances change following remedial actions. In this case the supply was at the time of the initial risk assessment within scope of the Regulations as it provided water intended for human consumption. The water was however found to be unwholesome and because of this, treatment was installed after enforcement by the local authority to ensure that the regulatory standards were met. It is noted that the local authority in this instance served a Section 80 notice when there was evidence of the supply being a potential danger to human health by virtue of health-based parameter exceedances. Local authorities are reminded that where such risks are identified they are duty bound to serve a Regulation 20 notice in accordance with the regulations.

As part of the remedial measures to mitigate the risks, members of the public were permanently denied the ability to access drinking water from the hand pumped tap but were still permitted to use the pool for spiritual healing purposes. Consequently, although the water was, and still is, in use for the primary purpose of providing spiritual healing, the supply is now not within scope of the regulations as it is no longer provided for human consumption.

Local authorities are reminded to review the classification of a private supply, or indeed whether the regulations still apply, when circumstances change, whether as a result of actions specified in

a notice or otherwise. This is important as ultimately these may have implications on changes in monitoring and other costs levied on the relevant person(s).

Figure 8. Well located in the chapel



Figure 9. Hand pump and temporary restriction of use signage



Figure 10. Spiritual well-being pool, February 2019

