Private Water Supplies

Protection of Drinking Water Sources: Roles, Responsibilities and Pollution Prevention Advice

October 2014

Legislation summary
The Drinking Water Directive 98/83/EC requires water intended for human consumption to be wholesome and clean and not a risk to public health. The Private Water Supplies Regulations 2009 implement the Drinking Water Directive for private drinking water supplies and food production purposes in England. In Wales, the equivalent regulations are the Private Water Supplies (Wales) Regulations 2010. A supply to a single dwelling is excluded from the risk assessment and monitoring requirement unless the water is used for a commercial or public activity or the supply owner has made a request for monitoring/risk assessment.

The Water Framework Directive 2000/60/EC sets protected area and no deterioration objectives, and aims to achieve good status, for water bodies (e.g. rivers, canals, reservoirs, groundwater). It also introduces Drinking Water Protected Areas, which are designated where water intended for human consumption is taken from water bodies (e.g. rivers, canal, reservoirs, groundwater) at an average volume of more than 10 m³ per day or to serve more than 50 people. For Drinking Water Protected Areas the requirements of the Water Framework Directive are to ensure (1) that taking into consideration the water treatment applied, the resulting water will meet the requirements of the Drinking Water Directive, and (2) the necessary protection for water bodies with the aim of avoiding deterioration in their quality. These requirements apply to water bodies used for public and private water supplies.

Drinking Water Inspectorate
The Drinking Water Inspectorate (DWI) is the competent authority for ensuring the Drinking Water Directive requirements are met in England & Wales. It provides independent reassurance that public water supplies in England & Wales are safe and drinking water quality is acceptable to consumers. The DWI also has a statutory role to supervise local authorities in relation to the implementation of the Private Water Supplies Regulations. This includes the provision of technical and scientific advice to local authorities, on all aspects of drinking water quality, including on private water supplies.

Local Authorities
Local authorities are the regulators for private water supplies and have a number of statutory duties under the Private Water Supplies Regulations. These Regulations place a duty on local authorities to carry out a risk assessment of each private water supply in their area and monitor to determine compliance with drinking water standards. The risk assessment considers the likelihood of contamination at the source of the supply and the surrounding area. It also involves checks of any storage tanks, treatment systems and associated pipe work. The risk assessment identifies actual and potential hazards that may affect the health of those using the water for drinking purposes and identifies where action is necessary to make sure the water supply is wholesome and safe to drink. The local authority has powers to require that the supply is improved by the owners or people who control the supply.

Local authorities are required by the Regulations to provide private water supply monitoring data to the Drinking Water Inspectorate. The DWI shares this information with the Environment Agency which contributes to the information it uses for Water Framework Directive assessments.

Environment Agency
The Environment Agency is the competent authority for implementing the Water Framework Directive in England. It assesses compliance with the objectives of the directive, identifies Drinking Water Protected Areas and facilitates environmental improvements to meet the environmental objectives. In partnership with others, the Environment Agency identifies the measures needed to achieve all the objectives and
facilitates agreement with those who will implement the measures. Examples of the measures needed to meet drinking water protected area objectives include reducing fertiliser and pesticide losses from land.

The Environment Agency publishes River Basin Management Plans (RBMPs) which provide a summary of the measures needed to manage the water environment and meet the requirements of the Water Framework Directive. Measures can cover large areas of land benefiting both private and public supplies. Where more targeted measures are needed for drinking water protection, safeguard zones may be identified. Safeguard zones are areas of land where measures are needed to prevent deterioration at an abstraction.

The RBMPs can help private water supply owners to understand if they are in a Drinking Water Protected Area or a safeguard zone and want to learn about the measures being taken in their local area.

The Environment Agency will provide, where available, information to help local authorities to assess the environmental risks that could affect the quality of private water supplies, for example knowledge of the local geology, water quality trends and catchment management initiatives. Wherever practicable, when a pollution incident occurs near a private supply, the Environment Agency will notify the local authority of the incident. The Environment Agency ensures environmental permits or abstraction licences are not issued for activities that could impact on private water supplies.

Supply owners and other relevant persons
For the majority (67%) of people who use private water supplies, their supply is drawn from groundwater, with the remainder mostly supplied from surface water. Private water supplies greater than 20 m³ per day require an abstraction licence. It is the owner’s responsibility to apply for and comply with an abstraction licence, which can be obtained through the government's website

All relevant persons, as defined in the Water Industry Act 1991, must enable the local authority to carry out their duties so that they can protect public health. Where the local authority has advised or served notice on any relevant person to improve the supply, they must either appeal or comply with that notice.

Pollution Prevention Advice
Infrastructure associated with private water supplies e.g. boreholes, springs and their associated pipe work, like other structures, require maintenance to ensure they are in good working order. Poorly maintained systems e.g. damaged borehole head works or casings, can allow contaminants to enter a water supply, and until fixed present an ongoing risk to the supply. It is the owner’s or supply manager's responsibility to ensure the structures associated with the private water supply are well maintained and specialist advice from a well driller, the well drillers association or a plumber may be needed to fix any problems.

Other potential sources of pollution impacting private water supplies may include farming activities, spills from domestic heating oil tanks and discharges from septic tanks/soak away systems. Supply owners and managers are encouraged by the regulators to develop an awareness of the risk to their supply from pollution in the catchment and consider what pollution prevention measures can be taken by themselves or others to minimise the risks.

Where a sewage or other discharge is within 50 metres of a private water supply, an environmental permit may be required to ensure protection of the private water supply. It is the discharge operator’s responsibility to apply for and adhere to the environmental permit. These permits can be applied for through the government website.

Should a pollution incident occur that affects a private water supply, it should be reported to the Environment Agency’s national incident hotline on 0800 807060. The Environment Agency will record the incident and may require further investigation and/or remedial works by the polluter. They may also inform the local authority and take enforcement action where appropriate.

www.gov.uk/environment-agency    dwi.defra.gov.uk/private-water-supply