





Establishing boreholes will bring you significant financial savings

You can save significant sums of money by using boreholes. Instead of using your local water authority to supply water, you extract it yourselves.

This is also environmentally advantageous, reducing the carbon footprint by two thirds in comparison to mains water.

Two types of borehole

Boreholes for water supply

In most cases, you are permitted to extract 20,000 litres of water, per day, from your borehole without a licence, to provide everyday water supplies. After installation costs, the water is free. The only cost is the small amount of electricity needed to drive the pump.

If your usage is greater than this, although you need a licence from the environment agency in order to extract the water, it is still a very cost-effective way of operating.

Boreholes for heating and cooling buildings

You can also use water from boreholes to heat and cool buildings, again at substantial financial savings.

The water extracted from the borehole is used in conjunction with a heat pump to heat the building, potentially obviating the need for a boiler. When cooling is needed, heat is transferred into the borehole water via a heat exchanger. This water is then pumped back into the ground via a second borehole. You may need several boreholes, depending on the application and ground conditions.

Working with variables

Having determined the type of borehole system you need, there are a number of points of consideration that determine how the new structure will work.

These include the geological conditions surrounding your building, the hydrological considerations, the type of pump and pump controls needed for the most efficient and trouble-free operation, and the changeable system demands during different times of day, week or year.

Trouble-shooting on existing borehole systems

We know there are areas of weakness in many borehole projects, because too often we are called in to retrofit a bad installation, where the wrong equipment has been specified.

Once we have analysed the situation and diagnosed a solution, we use our simulation process to ensure that it will work. Then we implement the corrections so that the system operates trouble-free from that moment and on-going.

