

## ***Water supply appraisal***

Planning Ref HPK/2017/0601  
Condition 14

A review of the site would require us to keep away from any septic tank by 50m. If we have to go closer to the septic tank then we have to obtain a permit for the septic tank. The close proximity does not exclude the drilling of the borehole.

The borehole has been drilled and is more than 50 meters from the proposed small sewage system.

During the drilling exercise we will ensure there is sufficient volume of water for the expected demand.

At the end of the drilling process the borehole will be completed using a gravel pack and an upper bentonite seal, 3 - 10m deep, to prevent any surface water ingress which could introduce contaminants. The borehole will be encased in a chamber, flush with the ground, with a suitable manhole arrangement for protection from physical damage and the reduction in surface water contact.

The water in the borehole will then be sampled for analysis and the results interpreted for the requirement of any necessary treatment systems. Treatment could involve ion exchange to deal with common items such as iron and manganese. If severe contamination is encountered then reverse osmosis can be considered.

We would always recommend that a filter and UV sterilisation system is installed as a precaution.

In summary, therefore:-

1. The borehole will be drilled using standard drilling techniques which have a proven record of being suitable.
2. The flow from the borehole will be measured during drilling and confirmed to be sufficient. If more water is require we will simply drill deeper.
3. The water will be tested and any treatment, chemical and/or physical, will be employed to ensure that it is wholesome.
4. No other property is utilising the same source. No other property is within the area of influence. No other water supply will not be compromised.