



Ashford Hill near Thatcham is not served by foul mains drains adequate enough to process the waste water from 35 new houses, connection to Thames Water was fully investigated and costed via a section 98 requisition application which provided a 7 figure sum that made the development costs nearly £50,000 per plot for foul waste treatment alone.

Initially the developer Persimmon Homes appointed Advanced Aeration Ltd to act as Agent with the task of gaining an Environmental Permit to discharge biologically treated sewage into the local brook. The Environment Agency has a duty to determine the likely impact on receiving waters which necessitated us providing detailed annual flows expected within the Brook as historically and at the time of testing zero flows were experienced, meaning at certain times of the year little or no dilution of the final effluent from the site could be expected, this was naturally a concern to local residents who over time had historically experienced problems related to other local sewage treatment plants. It therefore took around a year to fully satisfy the Environment Agency that Bio-Bubble did indeed represent an environmentally sustainable solution.

The Discharge was permitted to Baughurst Brook, a small water course that can dry up at certain times in the year. The determination outcome was a numerical standard with absolute maximum levels for BOD of 15mg/l, Suspended solids of 30 mg/l and ammonia of 5mg/l; safe to say one needs the plant to perform far higher than those levels to have a sufficient buffer within the legal compliance requirement, the Baughurst Brook passes through a SSSI so it was very important to mitigate the risks of plant / equipment and indeed process failure.

Process monitoring and plant management are key and similar to many of our client's sites we have a monitoring package to be forewarned of pending issues. For a development such as this we use a 4G network connection to keep a close watch on day to day functionality, trending flows and loads, effluent clarity and sludge production. The process comprises of Biological screening, primary tank mixing, full biological treatment and attenuation of final effluent.

Bio-Bubbles renowned ability to digest organic loads leads to a lower carbon footprint, significantly reducing the need for regular tanker visits to site to cart primary sludge's away, thereby keeping tanker traffic on small local village roads to the minimum.

Blaze Construction, a Persimmon Homes civils partner were appointed to carry out the related groundwork's for the installation of the Bio-Bubble STP.

