



**The National Trust's Mottisfont Visitor
Attraction.**

Mottisfont has seen a steady rise in visitor numbers over the years and this is expected to continue to rise year on year. The original installation in 1994 had a 20 year projected design requirement which has now been exceeded and with the forecasted annual visitor numbers increasing to a potential peak of 300,000 people per annum the time had come to future proof the compliance once again. When the Bio-Bubble was first commissioned the Mansion House was only open 6 days a week and closed to visitors between October and Easter with only a skeleton staff presence through that period which meant the way in which the Treatment plant was operated needed to change.

The facilities provided at Mottisfont, to enhance the visitor experience, has greatly improved over the last decade and with an impending new visitor centre in 2015 and additional facilities to cope with the expected growth in visitor numbers, it was decided that investment into the Bio-Bubble was necessary to guarantee continued compliance with the 12 mg/l BOD, 15 mg/l Suspended Solids, and 5 mg/l Ammonia standard set within the original Consent to Discharge.

Mottisfont's General Manager opted for daily monitoring of the Bio-Bubble Plant via a new broadband link along with the addition of two dissolved oxygen probes, two mixed liquor probes and ultra-sonic level control within each chamber, this equipment will allow us to constantly trend all readings and enable traceable monitoring of throughput and performance. Furthermore, this allows us to optimise the aeration to suit the actual organic loading thereby optimising the process. We have also increased our ability to diffuse further oxygen into the water within the two treatment reactors by doubling the number of Noxon diffusers as well as doubling the amount of air capable of being pumped into the plant thus increasing the treatment capacity.

The additional equipment and connectivity linking us direct with the plant means that we can react quickly if and when required and provide emailed reports that will clearly show the chain of events. The Trust will, if and when required, be able to show due diligence with respect to how they manage Mottisfont's Waste Water. The addition of this technology will also allow us to time sludge removal from the plant, this is important due to the fact that access by tanker to the plant's location can only be achieved when the ground is hard.

We believe taking control of the plant and reporting back to the House staff is a positive move forward freeing up staff from the responsibility. Having worked with The Trust at Mottisfont for 20 years we feel part of a team protecting the River Test and the numerous Trout, a legacy from the time when monks occupied the house.

For Further **Information** Contact Us :
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