



“Cobrey Farm’s Bio-Bubble has a makeover”

A Bio-Bubble WwTP was first installed at Cobrey Farm in 1996 when the core business for the farm was growing and processing potatoes, onions and other veg in pre-prepared form such as chipped potatoes and sliced onions. This type of waste has high average BOD levels of 3,600 mg/l plus laden with starch. Once the waste was treated the final effluent was pumped to the storage lagoons ready for use as irrigation water.

Twenty-five years later we have been back to Cobrey Farm to undertake a complete refurbishment of the mechanical and electrical elements of the Bio-Bubble including a redesign to marry with today’s process needs, the washing of asparagus in April, May and June along with blueberries and other Wye Valley branded products. These crops are more reliant on human labour; with up to 900 seasonal workers accommodated on site producing a significant amount of sewage waste to be treated.

The original Permastore tanks were used, with the raw waste passed forward to the Balance Tank from the inlet TPS tanks, which on demand three times a day is passed forward in Batches of up to 80 m³ to the large Reactor for full biological treatment.

Whilst the basic infrastructure remains unchanged, technologies have significantly moved forward as has the concepts and approach to energy usage and indeed how Cobrey Farm’s own clients review and judge their key suppliers’ Environmental credentials.

Our focus was to replace compressors and pump motors with energy efficient options, along with process management controls to use no more energy in blower run time and speed than is absolutely necessary to achieve the required final effluent quality needed for irrigation reuse, both during peak seasonal months as well as off peak times when picker numbers are down.

We manage Dissolved Oxygen levels and control the Aerzen blowers which both have variable speed drives; back in 1995 energy was cheaper and the carbon footprint of an operation was far less considered.

Another major advance in technology is the benefit of having remote access to site, using the various process management information probes fitted and a good broad band link enables us to have ‘real time’ data. It really makes the distance from our operational base to our client’s businesses far less of a concern when we are providing process support.