

University of Hertfordshire – Water Management

The University of Hertfordshire Residential & Sports Facilities project is being constructed on the old De-Havilland airstrip at Hatfield, Hertfordshire. There is a vast expanse of flat open land (approx 300 acres) of which the project occupies approximately 30 acres.

It has been necessary to make a deep excavation for the swimming pool with an additional trench for services. When excavation commenced it was seen that the groundwater was highly polluted with suspended solids. Permission to discharge into the drainage system to the brook would not have been granted with the degree of contamination found.

A system has been set up whereby this water is pumped up above the water table using a suction pump, through some reject stones. This water is then pumped through a series of settling tanks (open tank):



Suction pump to open tank

Settling Tank 1	Coarse material present in water
Settling Tank 2	Fine material in murky water
Settling Tank 3	Clear water



Water received at open settling tank

The clear water then free falls from the final settling tank and is absorbed through a purpose built 15m trench, which is lined with a Terram and filled with rejected stones.



Water discharge from tank to trench

This water is then pumped up and filtered again (closed tank), by which stage it is perfectly clear (an amazing contrast from what it was before) and is of adequate quality to discharge into the surface water system.



Pumping from trench



Discharge to site drainage

The water from here passes into an initial settling pond, through a man-made filter into a second pond and from this pond the water enters the brook.

