

Composting Leachate Treatment

Contaminated Water Case Study



Oceans-ESU Ltd was commissioned to design a reed bed capable of treating the leachate run-off from a composting facility in Hampshire.

Overview			
Type of Effluent	Area	Load	Notes
Compost Leachate: BOD, ammonia, nitrogen and metals	2,300m ²	90m ³ / day	Horizontal flow soil reed bed.



The Little Bushy Warren waste collection site is used for the gathering of green garden waste for Hampshire. The green waste is composted in windrows, and turned into soil and lawn conditioners, woodchip mulch or pine bark. Two lagoons collect rainwater runoff from a four hectare hard-standing area for the compost windrows. Veolia approached Oceans-ESU Ltd for assistance in developing a cost effective strategy for treatment or removal of the accumulated rain water in the lagoons.

Oceans-ESU Ltd designed a horizontal flow soil reed bed system. This consists of two reed beds to biologically treat the variety of effluents; and an engineered lake with a permanent water level, which acts as a balancing reservoir for a soak-away by natural percolation through the soil base.



Oceans-ESU Ltd provide an ongoing maintenance regime, which includes taking both inlet and outlet samples to ensure the system's efficiency, and regulatory compliance. The system has been operating since 2010 and due to its success, the client has recently asked Oceans ESU to design a system extension to cope with increased volumes of water that are now being produced.