

### Purification of contaminated river with a subsurface flow constructed wetland

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A constructed wetland with the aerobic tank and anaerobic/anoxic tank connected in series was employed in order to treat highly polluted river water. The aerobic tank was kept to be aerobic with the continuous supply of air through the natural draft system. Five different pilot plants having different residence times were employed together in order to obtain parameters for the best performances of the wetland. BOD and COD removal at the aerobic tank followed the first order kinetics, while at the anaerobic/anoxic tank they were consumed as carbon source for denitrification. SS removal efficiencies depended greatly on the hydrolic load rate of the aerobic tank. The wetland could successfully be operated without being blocked by the filtered solid which decomposed subsequently at very fast rate.