

Vertical helophyte filters



A helophyte filter is a sand filter that is generally planted with reeds. The actual treatment of the water is done by bacteria living in the roots. The reeds serve principally to aerate the roots and to capture nitrates and phosphorous.

Helophyte filters spread the wastewater in a smooth layer several centimetres below the surface of the filter. The water is led into the filter below the surface to prevent unpleasant odours. The wastewater seeps through the layer of sand and the roots where it undergoes biological treatment. A drain is placed at the bottom of the sand filter to capture the treated wastewater. Iron or copper particles are generally added to the sand layer to bind phosphates. Films, layers of clay or concrete ensure that the helophyte filter is hydrologically completely sealed from the ground. [Aquarama, 2011]

