# LANDFILL LEACHATE TREATMENT USING CONSTRUCTED WETLAND WITH SHORT DETENTION TIME

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**Abstract**: The paper presents results obtained during experiments with constructed wetlands that were built and monitored on the site of a municipal landfill in Southern Poland. The wetland was filled with gravel and rock in which reeds, cattails and willow were planted. A control plot without vegetation was also constructed. Each wetland was loaded with a portion of the leachate generated by the landfill. Measurements of the leachate quality showed very high concentrations of several pollutants. Particularly high concentrations of BOD, COD, nitrogen, and heavy metals were measured. High pollutant levels were probably responsible for the demise of the willows, which were dead within several months of planting. The efficiency of pollution removal with detention time up to 24 h ranged from 0 to 87% based on decreasing concentration of selected parameters. However, the removal efficiency of the control plot was typically only several percent lower than the removal efficiencies of the plots with vegetation.