

**RESEARCH REGARDING THE PHYTO-REHABILITATION OF THE SLUDGE
STORAGE AREA FROM WASTEWATER TREATMENT PLANTS**

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Abstract

The increasing amount of sewage sludge produced in developed countries, especially in metropolitan cities, has been one of the primary environmental issues the European Union has had to deal with. The wastewater and sludge from municipal wastewater treatment plants contain valuable nutrients, yet represent a pollution source because of the heavy metal content. In order to naturally restore the wastewater sludge storage areas, it is necessary to apply rehabilitation technologies. It is important to develop feasible and economical technologies for removing heavy metals from wastewater sludge. Phytoremediation is an alternative technology for the enhanced remediation of environments contaminated with heavy metals. Phytoremediation is a process that uses plants to remove, transfer, stabilize, and destroy contaminants in soils and sediments. The mechanisms include enhanced rhizosphere biodegradation, phyto-extraction (also called “phyto-accumulation”), phyto-degradation, and phyto-stabilization.

The aim of the present study is to illustrate the accumulation of heavy metals through spontaneous flora grown on wastewater sludge storage areas in order to apply phytoremediation as a rehabilitation method.

Keywords: phytoremediation, sewage sludge, heavy metal.

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