

EXAMINATION OF THE SOIL PARAMETERS AFFECTING VEGETATION GROWTH IN THE ANO LIOSSIA WASTE DISPOSAL SITE

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ABSTRACT

The vegetation of Mediterranean ecosystems is distinguished by its resistance to adverse environmental conditions, and that is the reason for examining the possibility of growing species of this flora in waste disposal sites (WDSs). The survival and growth of vegetation established at a waste disposal site is dependent to a large extent on the qualitative and quantitative characteristics of the material used in the final soil cover. In the Ano Liossia WDS, where extensive remediation work is under way, three areas were examined, which met certain criteria in relation to the age of the underlying waste and the existence of impermeable material in the final soil cover. Laboratory analyses have determined soil parameters and nutrient and heavy metal content. Alongside this, at all three sites a network has been installed to monitor the qualitative characteristics of the gaseous phase of the soil cover material. The results showed the existence of a soil material containing few nutrients and the prevalence of oxygen-poor conditions, accompanied by large concentrations of CH₄, CO₂ and H₂S, at depths of up to about one meter.