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ECOLOGICAL REMEDIATION OF THE ŠOŠTANJ
THERMAL POWER PLANT WITH RESPECT TO
SUSTAINABLE DEVELOPMENT OF THE ŠALEK
VALLEY, SLOVENIA

ABSTRACT

The Šalek valley used to be exposed to huge amounts of pollutants due to its close vicinity to the largest Slovene thermal power plant of Šoštanj (ŠTPP). Due to large emissions of SO₂ and heavy metals as well as dumping of fly ash negative effects on the environment appeared (e.g. forest decline in area exposed to deposition of emission by the ŠTPP, pollution of lake Velenje and the river Paka). Therefore, several ecological remediation measures on the ŠTPP were implemented in the 1990s, and several research projects on reasons and effects of forest decline and degradation of environment began as well. A continuous and marked improving of the condition of both forest and freshwater ecosystems (of lake Velenje and the river Paka) after the installation of desulphurization devices on Units 4 and 5 of the ŠTPP and construction of a closed loop system for the ash transportation is emphasized in the present paper.

KEYWORDS

remediation, Šoštanj thermal power plant, desulphurization devices, bioindication, Norway spruce needles, tree-rings, roe deer antlers

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