



АКАДЕМИЈА НАУКА И УМЈЕТНОСТИ  
РЕПУБЛИКЕ СРПСКЕ



СРПСКА АКАДЕМИЈА  
НАУКА И УМЈЕТНОСТИ



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# INFLUENCE OF LOCAL FACTORS ON THE DEPOSITION OF PLEISTOCENE ALLUVIAL SEDIMENTS IN THE LOWER SAVA RIVER VALLEY

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**Abstract:** The Quaternary period was characterized by cyclic climate change, with alternating cold and warm stages. A case study of the alluvial sediments at water supply wellfield of the City of Belgrade shows how climate change has influenced the formation of alluvial sediments in the riparian area of the Sava River (Sava River ditch, in the southeastern part of the Pannonian Basin). A stratigraphic analysis of the Quaternary sediments of two boreholes on the location a BGS water well is presented in the paper, along with the methods, results, indications and hypotheses about their origin and the characteristics of the strata in the context of Pleistocene climate change and the local tectonic setting. The results indicate that alluvial sedimentation and the characteristics of these sediments are predominantly determined by the tectonic and geological setting, as well as local conditions of the area surrounding the object locations, supported by lateral streams and tributaries.

**Keywords:** Pleistocene alluvial deposits, Sava River, Belgrade Groundwater Source, boreholes, water wells.