

## **Sedimentation Conditions in Small Anthropogenic Pond Estimated by Fast Field Measurements with the Use of Unmanned Vehicles**

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### **Abstract**

Zapadliska Lake is situated approximately 1 km from the Zegrze Reservoir, near the confluence of the Narew and Rządza rivers. The terrain where it is located is the Holocene overflow terrace and Vistulian glaciation dune terrace. The pleistocene dune terrace at the contact with the Holocene terrace was dissected forming elongated valleys filled with the organic material. The lake was formed due to a rise in the groundwater table following the construction of the Zegrze Reservoir in 1963. Zapadliska Lake has an area of 18,900 m<sup>2</sup> and its catchment is 102,000 m<sup>2</sup>. The catchment area is covered by the pine forest and is not connected to the river system. Lake has a stable water level controlled by the level of Zegrze Reservoir which is stabilized at 79.02 m a.s.l.