

**Wysocka, I., Brudniak, A., Kowalczyk, J. Odor Nuisance Related to Lake Kortowskie Restoration by the Hypolimnetic Withdrawal. *Ochrona Srodowiska* 2014, Vol. 36, No. 4, pp. 29–32.**

**Abstract:** Results of analysis of air quality around the receiver of hypolimnetic discharge demonstrate that such corrective measures take place at the expense of air pollution. Lake Kortowskie (Olsztyn, Poland) restoration is being carried out by selective hypolimnetic water withdrawal through a pipeline to Kortowka river, the receiver of the lake water. This is the reason why olfactometric studies were undertaken to evaluate the impact of lake restoration on the odor nuisance related to the use of this method. The analyses demonstrated that the odorant (*e.g.* hydrogen sulfide) concentration (immission) in the air just at the river outlet was subject to strong fluctuations. However, it always exceeded  $200 \text{ ou}_E/\text{m}^3$ . The highest concentration recorded at this site reached almost  $40,000 \text{ ou}_E/\text{m}^3$ . As the distance from the pipeline outlet increased, the immission usually decreased, until no odor could be detected. However, the odor was still detectable for about 500 m along the course of the river. Further studies are being carried out in order to determine the 'odor hours' and produce an odor map for the site.

**Keywords:** Odors, immission, hydrogen sulfide, water stratification, olfactometry.