

Zebek, E., Szwejkowska, M. Influence Evaluation of Pretreated Storm Water on Analysis of Cyanobacteria Numbers in Jeziorak Maly Urban Lake at Various Precipitation Rates. *Ochrona Srodowiska* 2014, Vol. 36, No. 1, pp. 27–31.

Abstract: The studies were conducted after installation of lamella separators clarifying storm water flowing into Jeziorak Maly urban lake in Ilawa. Differences were analyzed between cyanobacteria numbers and physico-chemical parameters of the lake water at separator outlets and in the pelagic zone as a function of precipitation rates. Statistically significant differences between cyanobacteria numbers and physico-chemical parameters of the lake water were demonstrated, indicating significant influence of storm water on cyanobacteria development conditions, especially in the littoral zone. Lowered water temperature and increased chloride concentration were factors limiting the algae growth. That conclusion was supported by more than twice as low cyanobacteria number at the separator outlets as in the pelagial. Additionally, it was found that an increase in the cyanobacteria number was accompanied by an increase in precipitation rate up to the level of about 90 mm. Possibly, this could be related to nutrient inflow from the catchment area. Precipitation above 100 mm was extreme developmental conditions for cyanobacteria under which a sudden decrease in their numbers occurred.

Keywords: Water quality, cyanobacteria, precipitation, lamella separator, nutrients.