



“Gheorghe Asachi” Technical University of Iasi, Romania



RESEARCH ON WATER QUALITY OF LAKE BAFI IN TURKEY

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Abstract

The Lake Bafa is an alluvial bar lake located in the Aegean Region in the Big Meander river basin in Aydın and Muğla provinces. However, the lake is currently threatened by severe pollution, being under the risk of serious degradation because of (i) uncontrolled urbanization; (ii) point and non-point source pollution; (iii) algae bloom; (iv) sediment transportation and pollution via influent creeks to the lake; and (v) severe degradation of the natural wetlands within its drainage basin. In this study, the water samples taken from 8 different stations which were inside and the shores of the Lake Bafa in February 2009, 2010 and August 2009, 2010. The stations that were spotted in the lake were analyzed for the physical and chemical changes taking place in water quality. Temperature, pH, EC, CO₃, HCO₃, Cl⁻, NO₂, NO₃, DO, o-PO₄, Na, K⁺, Ca²⁺ and Mg²⁺ parameters were measured. In the analyses, August and February months were chosen and their pollution loads were compared. Because of the fact that tourism activities generally increase in Lake Bafa, especially in August, domestic water discharges go up. Therefore, these rises cause pollution load in lake in August. On the other hand, Lake Bafa just serves for fishing boats in February, so pollution rate in February is not as much as in August within Lake. In other words, water pollution in August is higher than pollution in February.

Key words: Lake Bafa, pollution, Turkey, water quality

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