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## ASSESSMENT OF PHYSICO-CHEMICAL WATER QUALITY OF BOUGARA DAM-TIARET, ALGERIA

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### ABSTRACT

The present study aimed at assessing water physicochemical quality of Bougara Dam (Algeria). Water samples were collected in 2019 from different locations within the dam's reservoir for a period of three months (from Mars to May). Several physicochemical parameters (pH, temperature, electrical conductivity (EC), dissolved oxygen (DO), dry residuals, oxidizable matter (OM), nitrate (NO<sub>3</sub><sup>-</sup>), ammoniacal nitrogen (NH<sub>4</sub><sup>+</sup>), chloride (Cl<sup>-</sup>), phosphates (PO<sub>4</sub><sup>3-</sup>), biological oxygen demand (BOD5) and chemical oxygen demand (COD)) were measured. The result of this research showed that mean values of studied parameters, except phosphates and ammoniacal nitrogen concentrations were within the permissible limit of standards established by the National Agency for Hydraulic Resources (ANRH) and Algerian standards for surface water. These findings constitute a basis for monitoring the physicochemical quality of water in the study area.

**Keywords:** Physico-chemical parameters, Bougara Dam, Tiaret, Water quality.