Study of Beni Haroun dam pollution (Algeria)

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\textbf{ABSTRACT}

The aim of this work is to study pollution parameters evolution in Kebir-Rhumel basin over 10 years, considering data from four hydrometric stations, and analyze physicochemical and bacteriological characteristics of Beni-Haroun dam streamwater over 5 years. Some analyzed parameters are in relation with water natural structure such as (pH), conductivity, turbidity, chloride ions, sulfate ions…etc. and undesirable substances as nitrates (NO\textsubscript{x}) and phosphates (PO\textsubscript{4}\textsuperscript{3-}) excessive concentrations, which are the main factors responsible for algae proliferation and eutrophication phenomenon acceleration. Thus, pollution indicator parameters as chemical oxygen demand (COD), biochemical oxygen demand (BOD\textsubscript{5}), dissolved, and saturated oxygen were also studied. The elaborated work had shown increasing turbidity and suspended matter (SM) in Beni-Haroun dam and Kebir-Rhumel basin, where sulfate concentrations (SO\textsubscript{4}\textsuperscript{2-}) are noticeable in different samples. BOD\textsubscript{5}, COD, dissolved, and saturated oxygen values indicate organic, chemical, and microbiological water contamination in both dam streamwater and basin catchment.

\textit{Keywords}: Pollution; Water surface; Beni-Haroun dam; Kebir-Rhumel catchment basin