

Study of the quality of surface waters of the watershed of High Cheliff (North West Algeria)

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ABSTRACT

Surface waters following their origins vary in composition, constituted of dissolved gases (CO₂, O₂, N ...), plankton, organic matter ... and so their quality is threatened by various types of pollution (urban, industrial, agricultural ...).

The objective of the study of water quality resides in the knowledge of the degradation which surface water suffered and reason for the multiplication of sources of pollution reserves. Therefore the resources may they become inaccessible in some areas of the country.

Our work focuses on the quality of surface waters of Haut Cheliff and to know the water quality of 05 dams namely Ghrib, Deurdeur, Harraza Ouled Mellouk and Sidi M'Hamed Ben Taiba, already in operation and is for supply of potable water and irrigation of the plain of Haut Cheliff. So the summary sheet elaborated on the water quality of these dams summarizes the monthly monitoring of certain physico-chemical parameters for the two years 2007 and 2012 and the annual evolution of these parameters during the period from 2007-2012.

Indeed, there has been a deterioration of the physico-chemical quality of water from these dams over time, represented by the high contents of nitrogenous matter (NH₄⁺ and NO₂), phosphorus PO₄, organic matter (DCO) and the dry residue. This pollution is mainly due to the discharge of urban wastewater of agglomerations located at the upstream watersheds of these dams.

On the basis of results obtained, we could classify these dams according to their degree of pollution of the more polluted (Ghrib, Deurdeur and Harraza) at least polluted (Ouled Mellouk and Sidi M'Hamcd Ben Taiba).

Keywords : Quality, High Cheliff, dams, physico-chemical parameters, watershed pollution.