

QUANTITATIVE APPROACH TO DEFICIT OF FLOW CALCULATION IN THE CÔTIER-CHELIFF-ZAHREZ HYDROGRAPHIC BASIN IN THE NORTHERN ALGERIA.

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Abstract:

The sizing and building of hydraulic works in low extent basins is often troublesome due to the lack of hydrometeorological data. The need for storm hydrograms at different return periods is usually solved by using empirical formula obtained for regions with climatic and physical conditions very different from the area in Algeria. The synthetic hydrogram is an alternative method, which can be applied by estimating three parameters: climatic exponent, daily maximal rain and water deficit. The climatic exponent and daily maximal rain are relatively easy to be estimated, but the water deficit is not, thus being the aim of the present work. To do so, we present a simple methodological approach, based on a hydrological assessment, for the estimation and the development of runoff shortage chart in the Cheliff-Zahrez hydrographic basin, which drains an area of more than 55 000 km² in northern Algeria.

Key words Deficit of flow; Cheliff-Zahrez; synthetic hydrogram.