

Study and Modeling of Flood Watershed in Arid and Semi Arid Regions of Algeria

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Abstract : The study on floods in Algeria established by the National Agency of Water Resources (ANRH) shows that the country is confronted with the phenomenon of very destructive floods and floods especially in arid and semiarid regions. Flooding of rivers in these areas is less known. They are characterized by their sudden duration (rain showers, thunderstorm). The duration of the flood is of the order of minutes to hours. The human and material damage caused by these floods were still high. The study area encompasses three watersheds in semi-arid and arid south and Algeria. THERE are pools of Chott-Melghir (68,751 km²), highland Constantine-07 (9578 km²) and El Hodna-05 basin (25,843 km²). The total area of this zone is about 104,500km². Studies of protection against floods and design studies of hydraulic structures (spillway, storm basin, etc.) require the raw data which is often unknown in several places particularly at ungauged wadis of these areas. This makes it very difficult to schedules and managers working in the field of hydraulic studies. The objective of this study and propose a methodology for determining flows in the absence of observations in the semi-arid and arid south eastern Algeria. The objective of the study is to propose a methodology for these areas of flood calculation for ungauged rivers.

Keywords : flood, watershed, specific flow, coefficient of variation, arid

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