

Higher National School of Hydraulic

The Library

Digital Repository of ENSH



المدرسة الوطنية العليا للري

المكتبة

المستودع الرقمي للمدرسة العليا للري



The title (العنوان):

Watershed based hydrological evolution under climate change effect: An example from North Western Algeria

The paper document Shelf mark P20-13 :(paper version not available)

APA Citation (APA توثيق):

Hadour Ali, Mahé Gil, Meddi Mohamed, et all (2020). Watershed based hydrological evolution under climate change effect: An example from North Western Algeria. *Journal of Hydrology: Regional Studies*, vol 136 , p. 100671. DOI ou URL : <https://www.sciencedirect.com/science/article/pii/S2214581819301041>

The digital repository of the Higher National School for Hydraulics "Digital Repository of ENSH" is a platform for valuing the scientific production of the school's teachers and researchers.

Digital Repository of ENSH aims to limit scientific production, whether published or unpublished (theses, pedagogical publications, periodical articles, books...) and broadcasting it online.

Digital Repository of ENSH is built on the open DSpace software platform and is managed by the Library of the National Higher School for Hydraulics. <http://dspace.ensh.dz/jspui/>

المستودع الرقمي للمدرسة الوطنية العليا للري هو منصة خاصة بتقييم لإنتاج لأساتذة باحثي المدرسة

يهدف المستودع الرقمي للمدرسة إلى حصر الإنتاج العلمي سواء كان منشورا أو غير منشور (طروحات، مطبوعات، مباحث، مقالات، دوريات، كتب...) بثه على الخط.

المستودع الرقمي للمدرسة مبني على المنصة المفتوحة DSpace ويتم إدارته من طرف مديرية المكتبة للمدرسة العليا .

كل الحقوق محفوظة للمدرسة الوطنية العليا للري.

Abstract:

Study Region

Three major river basins the Cheliff, Tafna and Macta in North-West Algeria.

Study focus

The purpose of this work is not to test the different climate models but rather to study the sensitivity of hydrological parameters to future climate change. This is achieved using the GR2M hydrological model and climate scenario data from the CNRM-CM5 model.

New hydrological insights

In terms of observed trends, the monthly flows decreased significantly between 1970 and 1999, mainly due to the decrease in precipitation combined with the increase in the potential evapotranspiration (PET), caused by rising temperatures. According to the RCPs8.5 and 4.5 scenarios projections, the decrease in Winter discharges will continue in the future. For the Spring, RCP8.5 forecasts a moderate increase, while RCP4.5 shows a downward trend.

Key words: Algeria ; Climate change ; CNRM-CM5 ; PET ; Flow ; GR2M

Available from : <https://www.sciencedirect.com/science/article/pii/S2214581819301041>