

# A methodology for evaluation and mapping of flood risk—a Case study of Oued Mekerra in the West of Algeria

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## Description

Mapping is a necessary phase for the establishment of plans for prevention of flood risk. It is absolutely mandatory for defining the constructability rules in areas subject to flooding. The mapping of risk is based on the flood evaluation with specified return period. The proposed methodological approach is structured in three steps, characterized by the adoption of hydrological, hydraulic and mapping techniques, respectively. In the hydrological step, the input conditions are defined by the flow-duration-frequency modelling, the synthetic hydrographs and the objective of safety to attribute to an area through variables related to the vulnerability factor. The hydraulic calculation provides information on the hazard factor and allows the evaluation of the local rating curve. The mapping technique allows the translation of the results obtained following the two previous steps in the form of geographic maps, which respond to the ...