EVALUATİON OF THE EFFECTS OF INTERVENTİONS ON RİVER BEDS ON FLOODS İN TURKEY

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EXPERTISE THESIS ABSTRACT

While flood events are a part of nature, inappropriate interventions to riverbeds disrupt the natural state of river basins and turn floods into natural disasters increasing their damage.

In this study, intervetions to riverbeds and legislation related to flood in Turkey were investigated. European Union Floods Directive and flood insurance in the United States were described in general terms. Interventions to the riverbed in Turkey and occurrences of them were defined, historical floods that occured in our country that caused significant damage and casualities have been investigated to evaluate the effects of interventions to riverbeds on floods.

Besides flood protection, basin level applications including many dimensions such as air – water quality, habitat creation, recreation, wetlands, health, transportation and aesthetics in Turkey and in the world are evaluated according to their relationships, effects, and outcomes. In this projects, interventions to river beds were kept in the maximum level, recommendations were made by investigating their results and effects.

Behzat creek passing through Tokat city center has been selected as pilot working creek and field works has been carried out in order to identify the interventions to riverbed. Previous projects and studies of the basin as well as historical floods were investigated and a 1D hydraulic model (HEC-RAS) was run. Input data used in the model and data obtained from the field have been checked. Model outputs have been evaluated and suggestions have been offered.

Keywords: Riverbed, Model, Intervention, Flood