

Supporting Information for ”Physio-climatic controls on vulnerability of watersheds to climate and land use change across the United States”

Ankit Deshmukh,¹ Riddhi Singh¹

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Introduction

Corresponding author: Ankit Deshmukh, Department of Civil Engineering, Indian Institute of Technology, Hyderabad, Kandi, Telangana, 502285,India. (deshmukh.iith@gmail.com)

¹Department of Civil Engineering, Indian Institute of Technology, Hyderabad, Kandi, Telangana, 502285,India.

Figure S1 Figure is a collection of scatter-plots of significant correlation between watersheds' characteristics and critical precipitation change thresholds. Scatter-plot for 69 watersheds of all four indicators are show in the figure.

Figure S2 Figure S2 is similar as Figure S1 but it shows scatter-plots between watershed characteristics and land use thresholds. Each scatter plot is plotted for 40 watersheds, because only these 40 watershed has significant land use control.

Table S1 Table contains ranges of parameters for all watershed calculated through *a priori* parameter estimations using watershed physical properties obtained form Falcone Database and recession analysis. Ranges of parameters LAI,Sb and Fc are computed form watersheds' physical properties, where other two parameter A_{SS} and A_{BF} are calculated based on recession analysis.

Table S2 Shows the information about watersheds which are used in the study. we investigate total 77 watershed in the study, 'USGS ID' column represents the USGS gauge ID of the watershed. Other information like watershed area(km²), elevation(m), mean annual precipitation(mm), mean annual discharge(mm) and mean annual potentio-evapotranspiration(mm) also shown in the table. Data are obtained form MOPEX database.

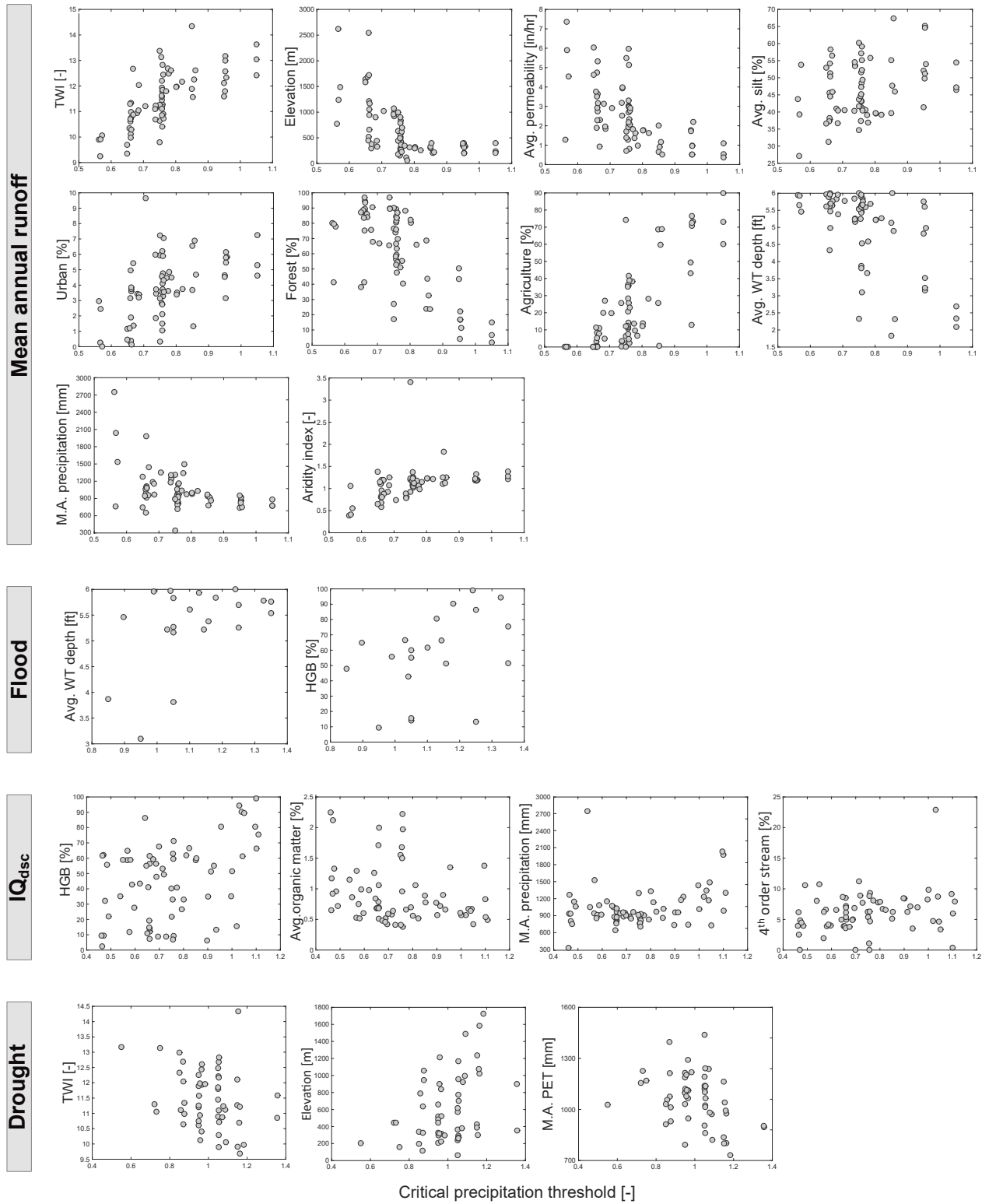


Figure S1. Plots of watershed characteristics vs critical precipitation change threshold.

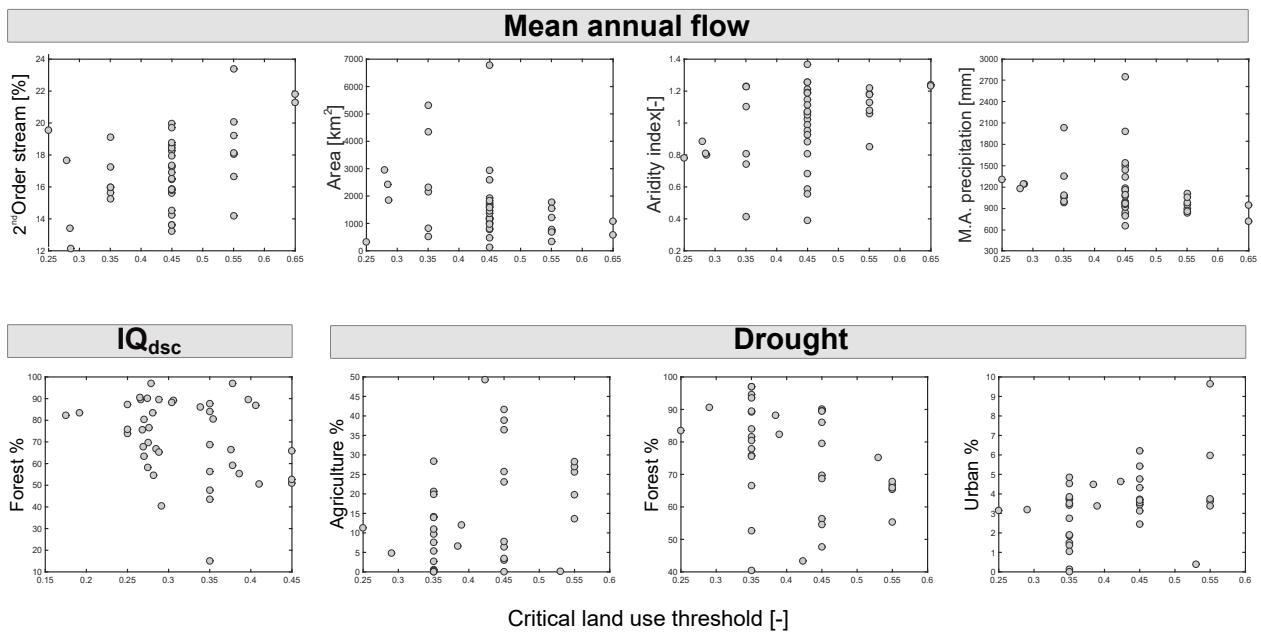


Figure S2. Plots of watershed characteristics vs critical land use change.