

Project Title: Precipitation and Runoff Characteristics of the Watershed of Balıkesir-Bigadiç Kocadere Creek

Research Area	Soil and Water Resources
Research Program	Conservation and Development of Soil and Water Resources of Watersheds
Executive Institute	International Agricultural Research and Training Center (IARTC)
Supporting Institute/s	-
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Research Period	1987-2012
<p>Project Summary: In this report, the results of hydrologic research obtained from Balıkesir-Kocadere watershed of 11.366 km² area for the period of 1987-2012 are presented.</p> <p>The spatial and temporal distribution of the rainfall, the mean values for the basin and the frequency analyses are drawn in the studies related to the precipitation. In flow studies, the average discharge values, individual flow hydrographs and the average unit hydrograph for the watershed are given. Then, this unit hydrograph is compared with hydrograph obtained from different synthetic methods.</p> <p>Arithmetic average annual precipitation of the watershed for the period of 1987-2012 is 603.1 mm. Between 1988 and 2012, average runoff of 102.26 mm is obtained in response to the average rainfall of 593.0 mm. Elements of a 1-hour average unit hydrograph for the watershed is found as $q_p=1665.4$ l/sec, $t_p=2.44$ hours, $t_b=10.00$ hours.</p> <p>Key words: Balıkesir, Bigadiç, Kocadere, hydrology, precipitation, runoff, watershed, unit hydrograph</p>	