



## TR-28

### A Hydrometeorological Study Related to the Distribution of Precipitation and Runoff over Small Drainage Basins -- Urban Versus Rural Areas

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The effects of urbanization on streamflow are investigated for two adjacent similar watersheds located in and near Bryan, Texas. The Burton Creek watershed is 84 per cent urbanized and the Hudson Creek watershed is completely rural. Storms observed within each basin are used for comparison of pertinent hydrograph parameters. Simultaneous events are compared between the watersheds and the urbanization effect noted. A synthetic procedure for predicting hydrographs on both watersheds is developed. Reproduction of actual events indicates better results in the rural watershed. There is conclusive evidence that the urbanization of a watershed decreases time-to-peak and increases the peak discharges.

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