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# **CALIBRATION OF THE SOIL CONSERVATION SERVICE (SCS) METHOD IN PENINSULAR MALAYSIA USING SUNGAI PARI CATCHMENT.**

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## **ABSTRACT**

This paper presents the findings of the calibration of the Soil Conservation Service (SCS) Method using observed streamflow record of Sungai Pari Catchment in Negeri Perak. The calibration of the SCS Method involves two variables, that is the local correction coefficient factor (CCN) for curve numbers (CN), and the correction coefficient factor (CK) for peak attenuation factor (K). After these correction coefficient factors are determined then the SCS Method will be used to estimate peak runoff from an ungauged catchment within the same region of the catchment used in the calibration. The SCS Method make use of runoff curve numbers CN for selected soil groups, catchment land use and antecedent moisture condition to estimate the peak runoff from an ungauged catchment.

## **INTRODUCTION**

The SCS Method which was developed by the Soil Conservation Service (SCS, 1957) is based on a dimensionless hydrograph, developed from a large number of unit hydrographs ranging in size and geographic location. Normally the unit hydrographs were obtained from observed hydrographs in the same geographical location of interest. The hydrograph is represented as a simple triangle with rainfall duration  $D$  (hr), time of rise  $T_R$  (hr), time of recession  $B$  (hr), and peak flow  $Q_p$  (cfs or cumecs).

The objective for the selection of the SCS Method is to have an alternative method to estimate the runoff from rural, and/or mixed development catchments in Peninsular Malaysia. Presently there are two procedures for estimating the design flood from ungauged rural catchment for used in Peninsular Malaysia: the Rational method