

Runoff

Introduction

Runoff means the draining or flowing off of precipitation from a catchment area through a surface channel. it thus represents the output from the catchment in a given unit of time.

The runoff is classified into two categories

- i. Direct runoff and
- ii. Base flow

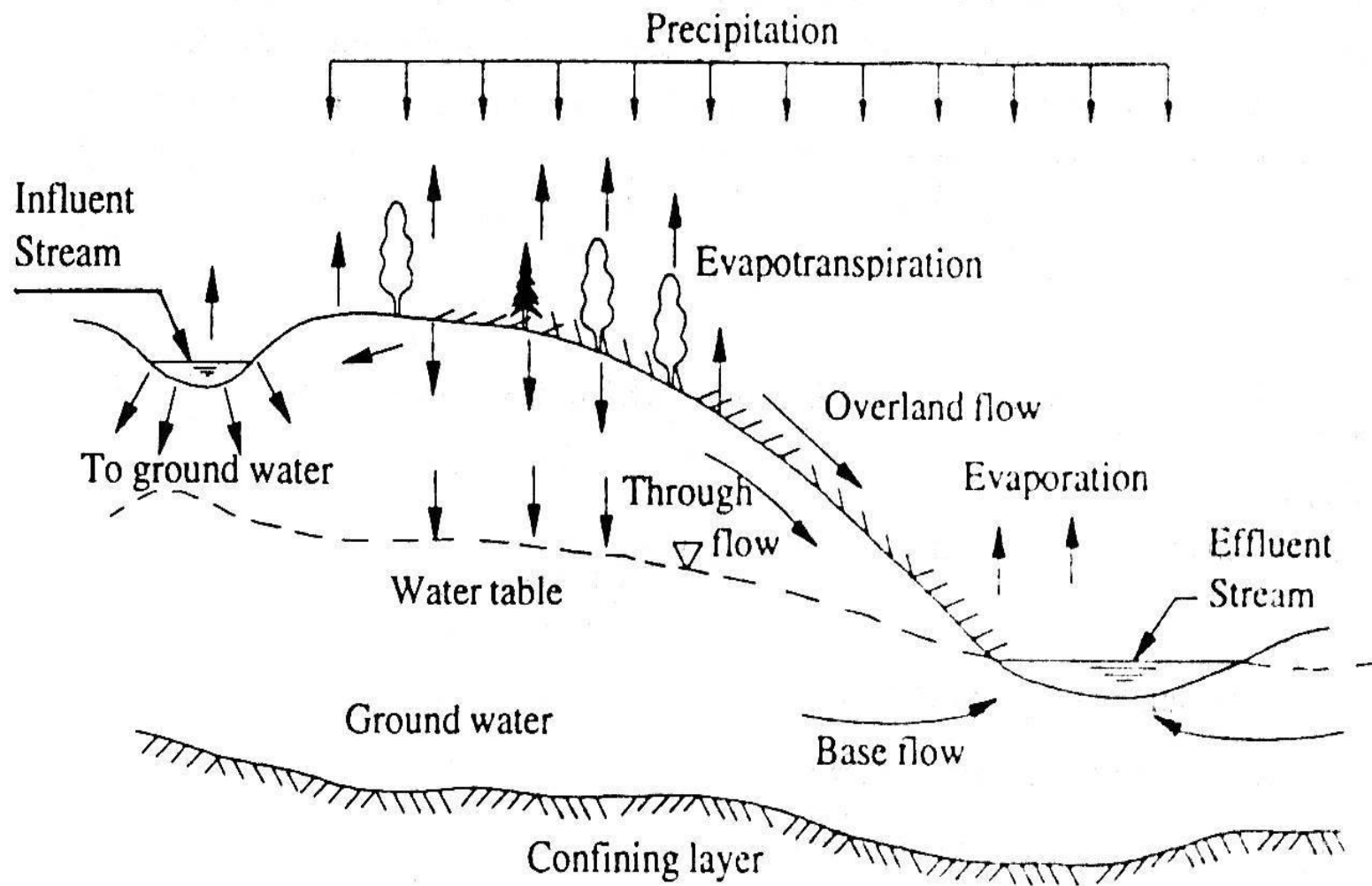


Fig. 5.1 Different routes of runoff

Runoff Characteristics of Streams

The streams is classified into three categories

- i. perennial
- ii. Intermittent and
- iii. ephemeral

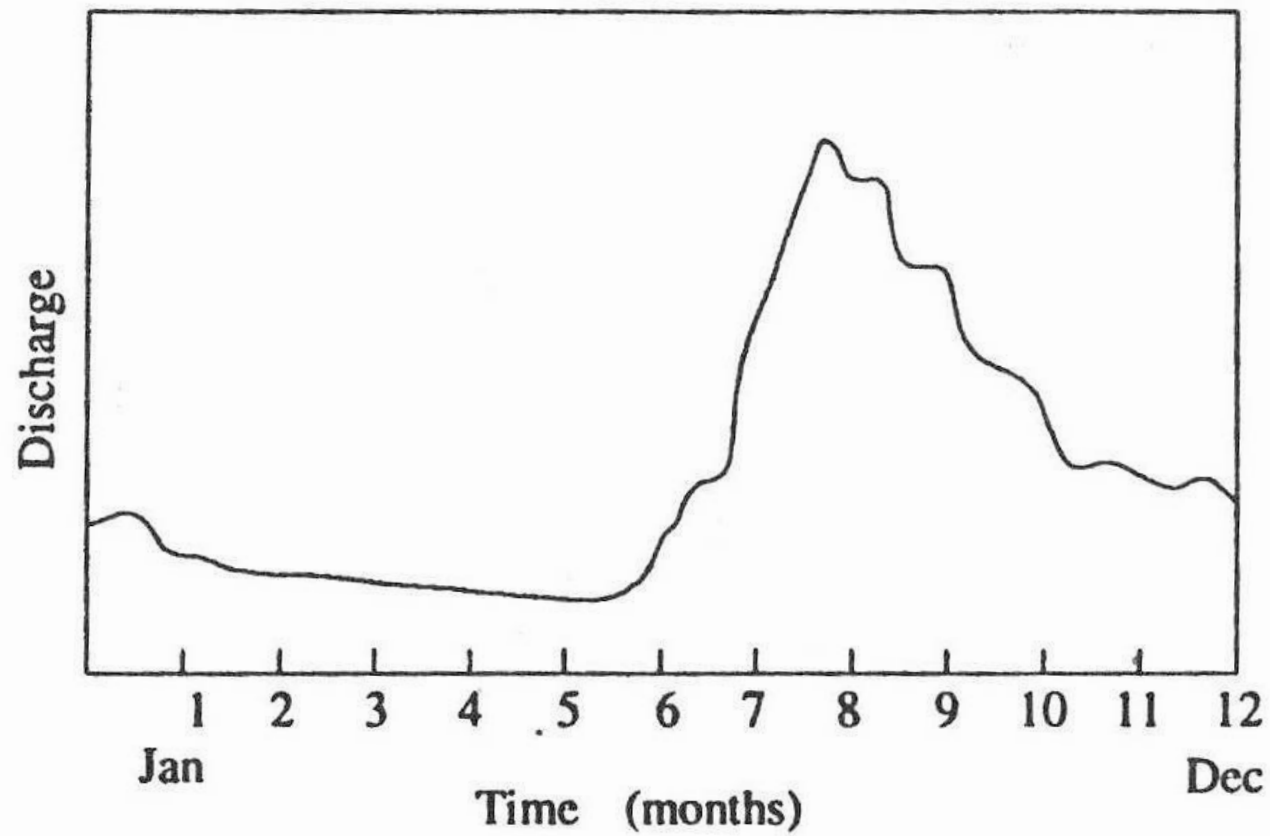


Fig. 5.2 Perennial stream

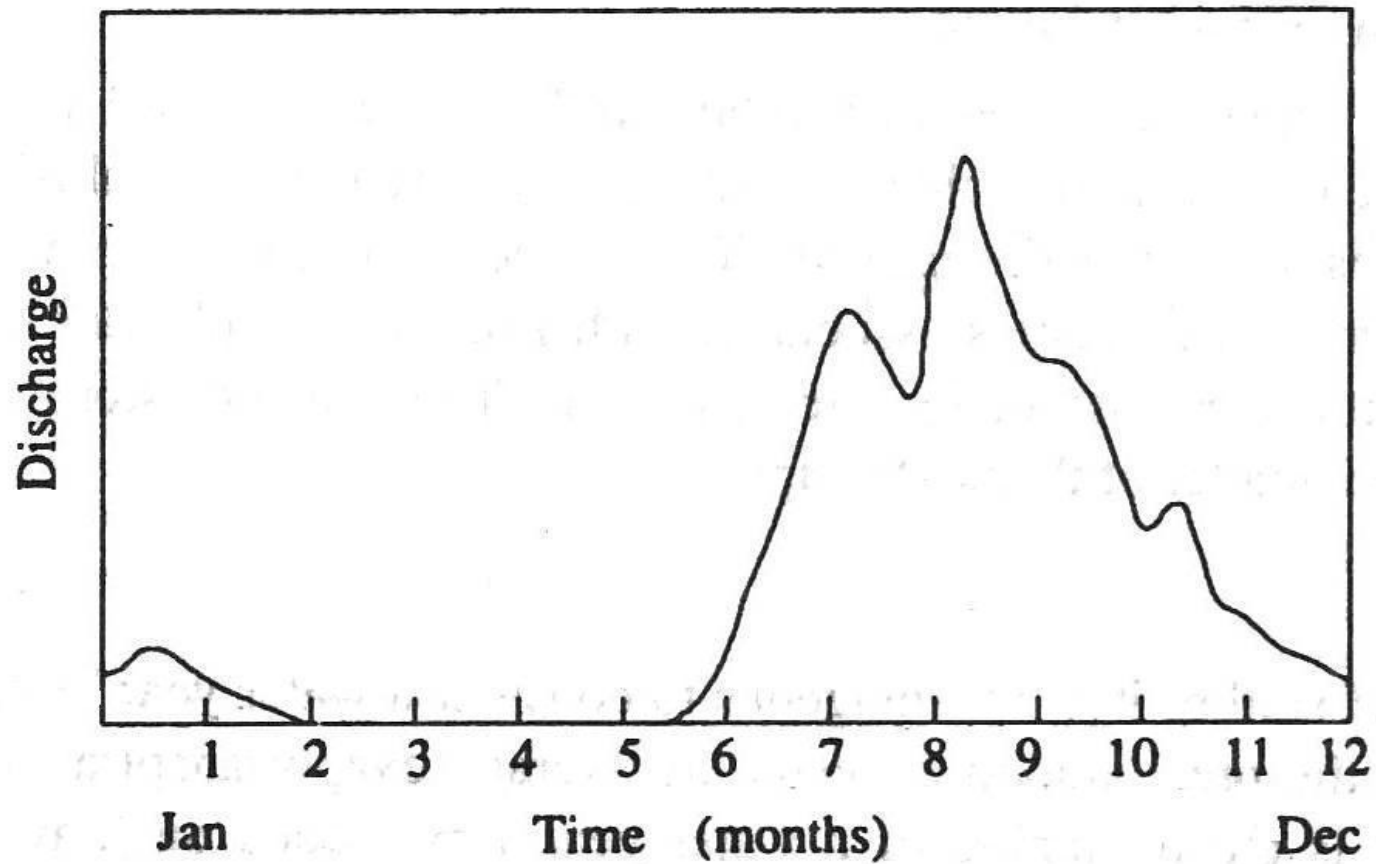


Fig. 5.3 Intermittent Stream

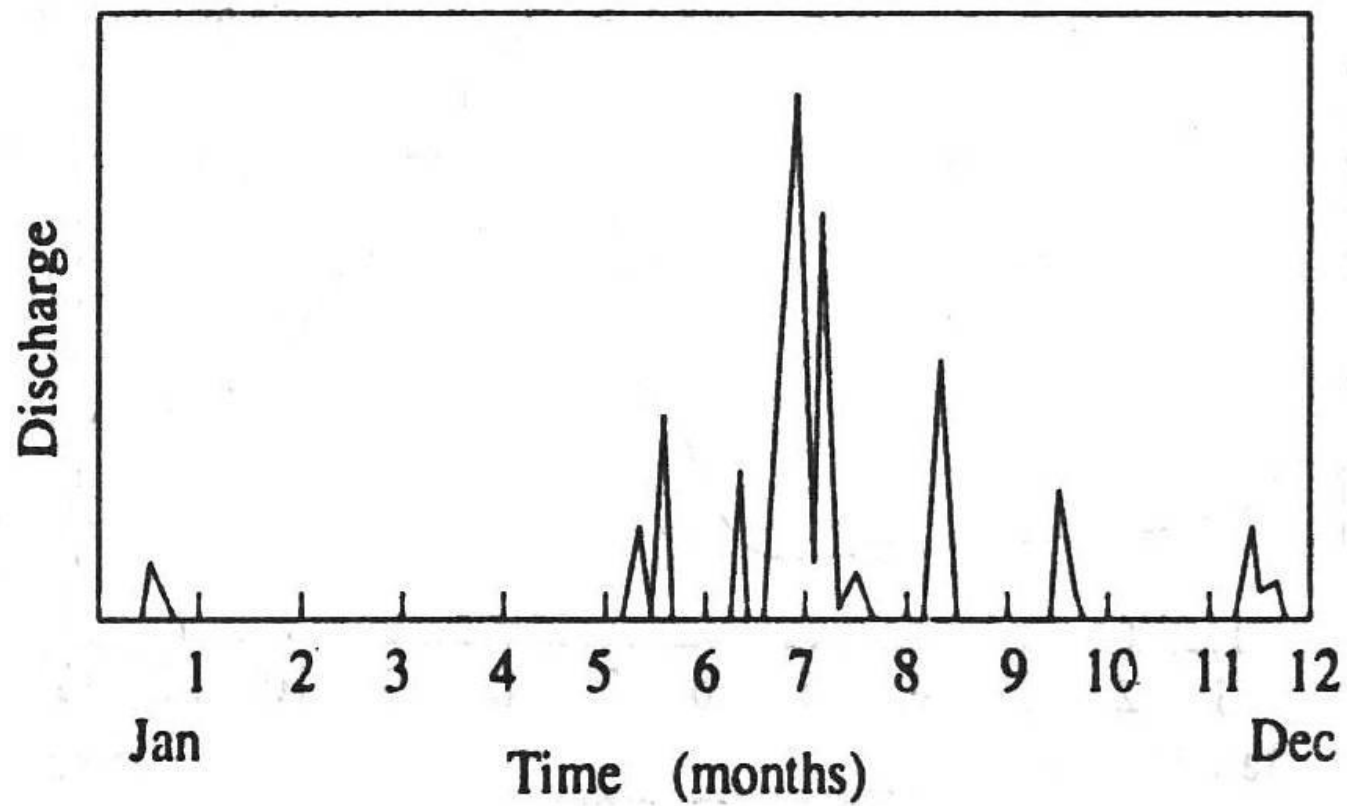


Fig. 5.4 Ephemeral stream

Rainfall – Runoff Correlation

$$R = a P + b$$

For large catchment, it is found advantageous to have an exponential relationship as

$$R = \beta P^m$$