

An Introduction to Groundwater Issues at Mine Sites

Produced by:

R.V. Nicholson, Ph.D.

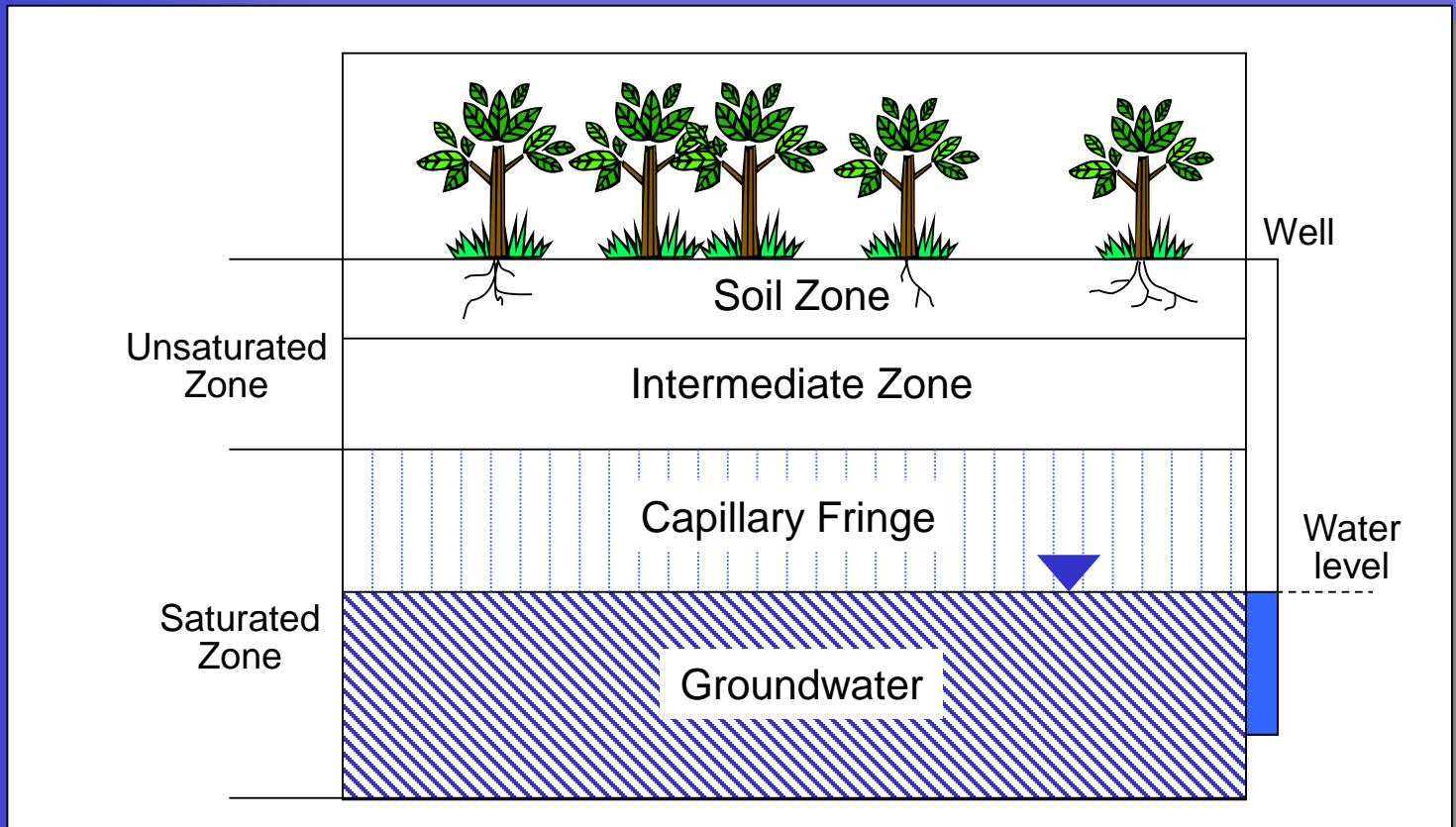


Topic 3: The Water Table and Associated Concepts

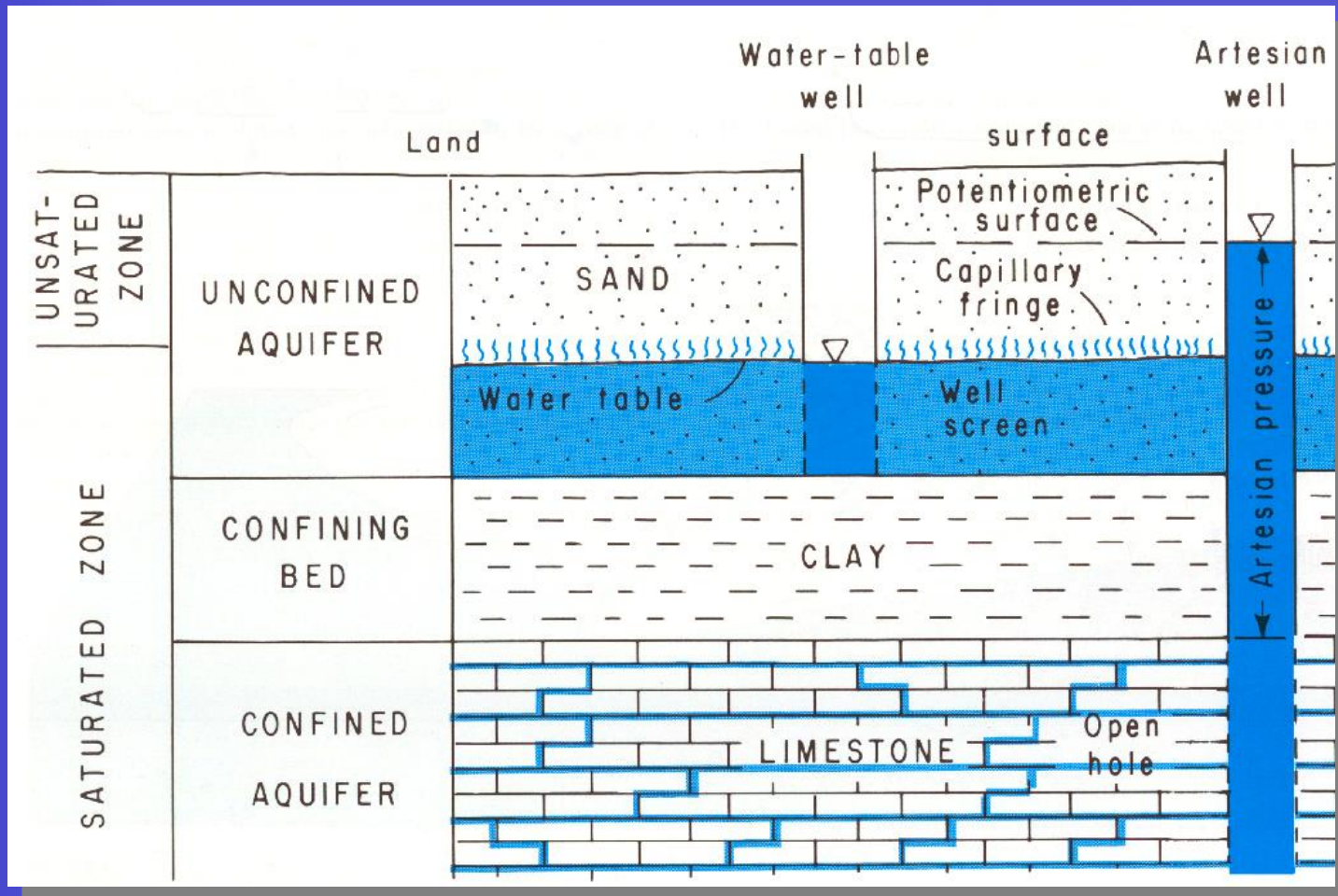


The Water Table

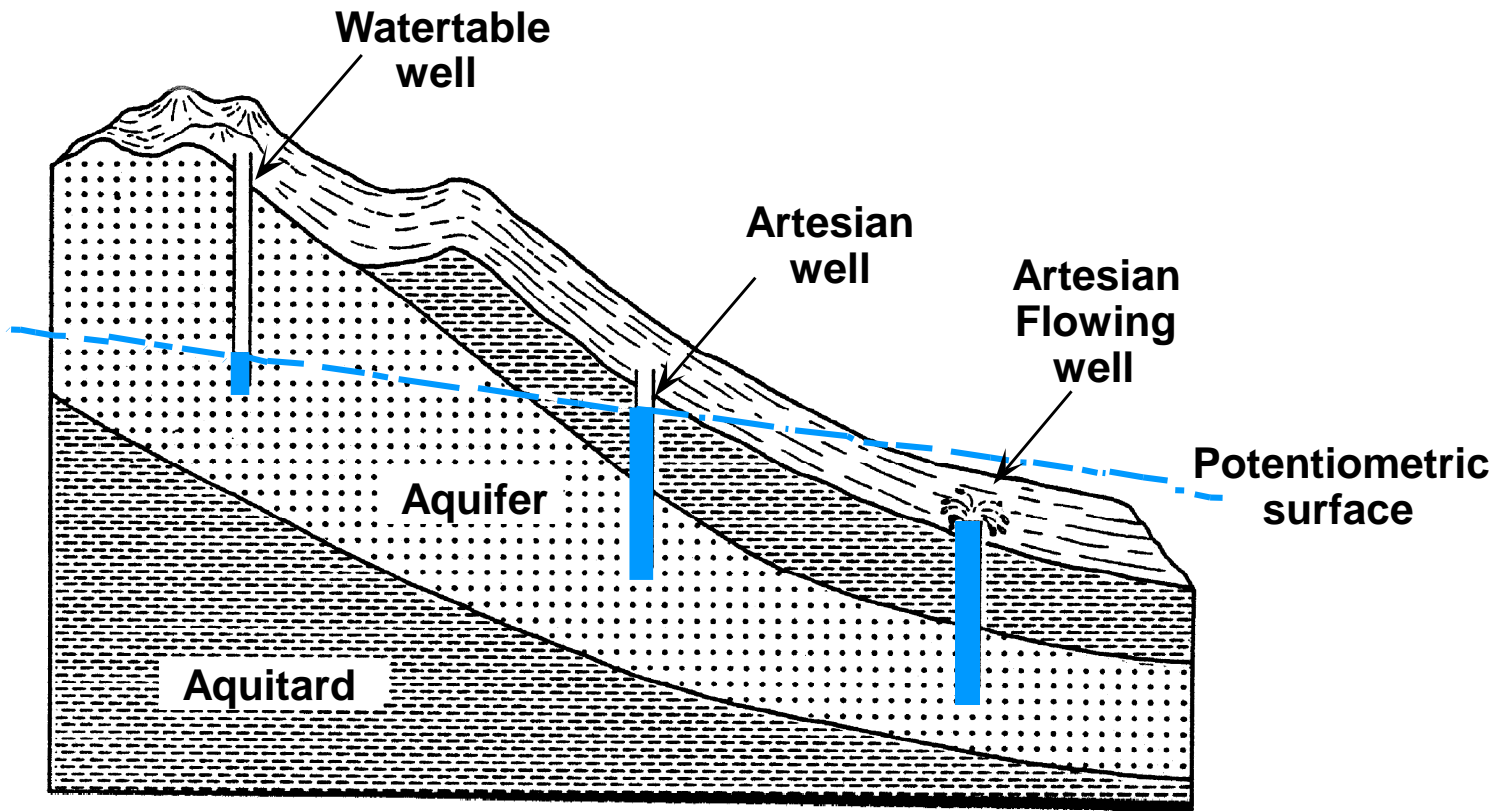
The Water Table: The surface where pressure = atmospheric



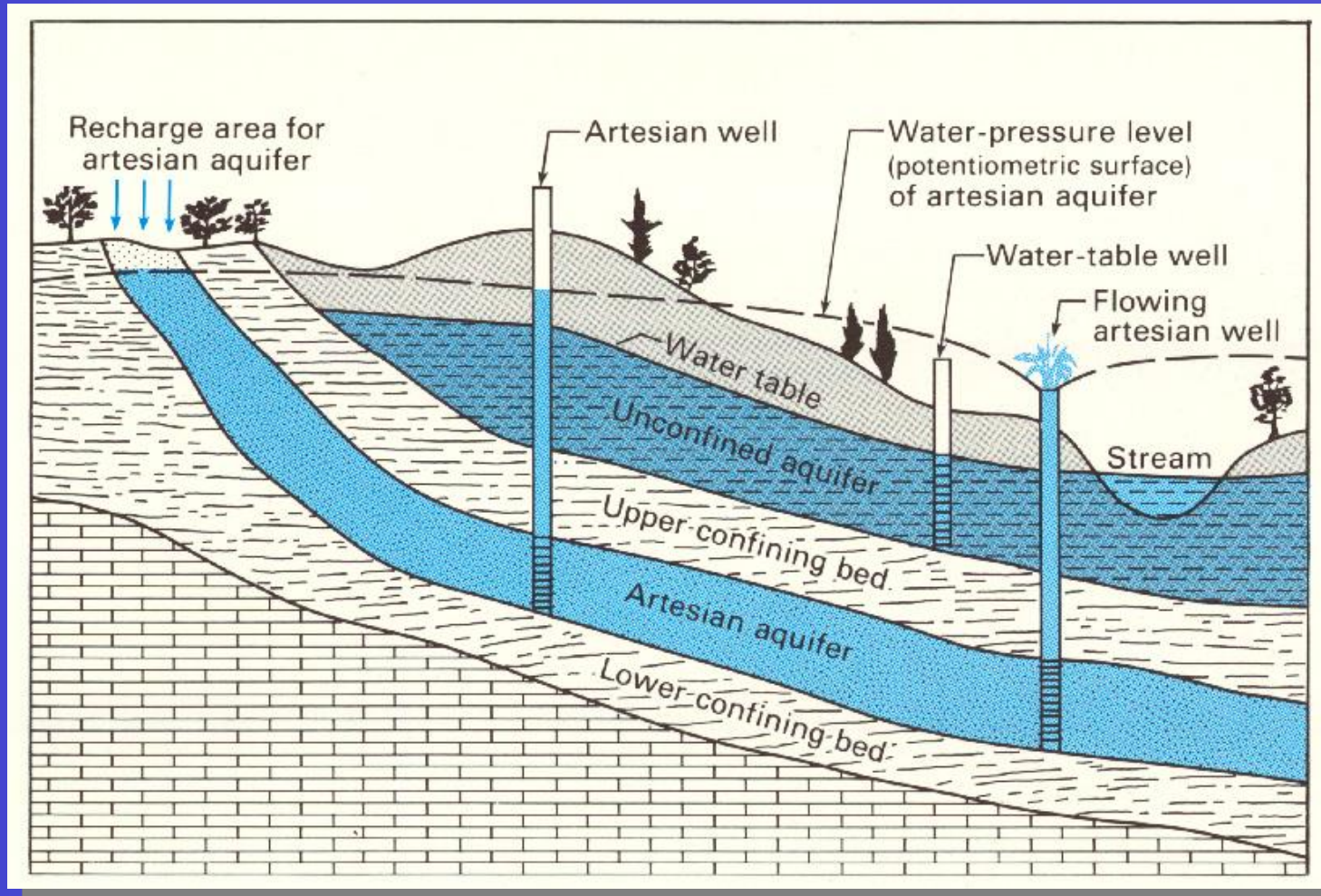
Aquifers: Unconfined vs. Confined



Aquifers: Unconfined vs. Confined

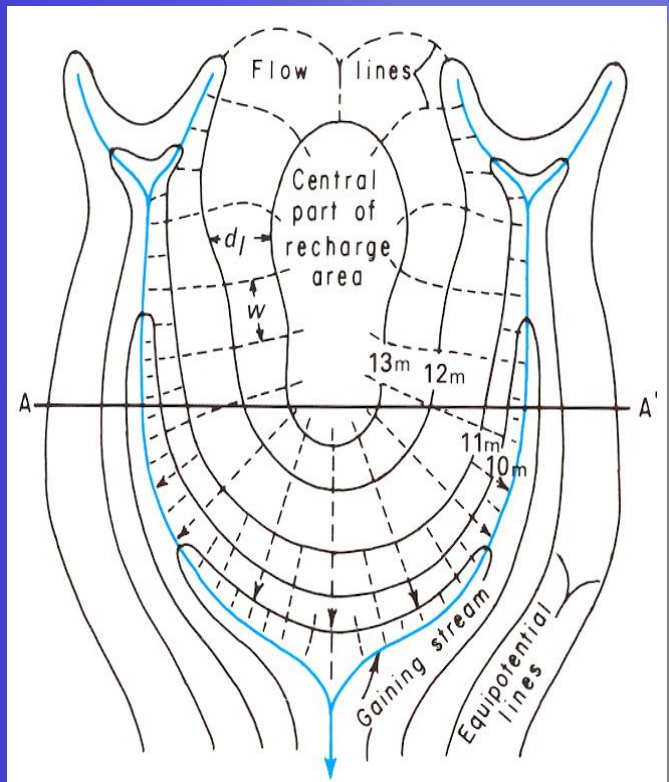


Aquifers: Overview

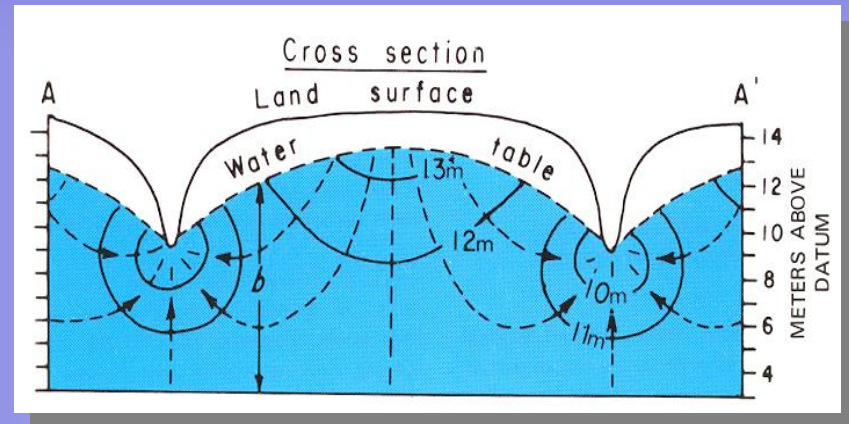


Flow Direction

1. Recharge areas
2. Discharge areas

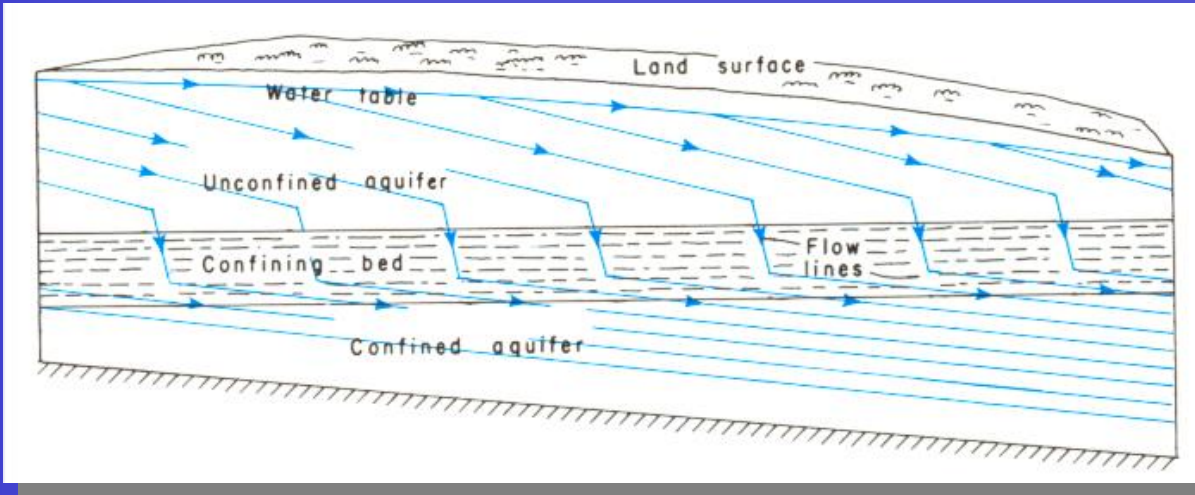


Plan View



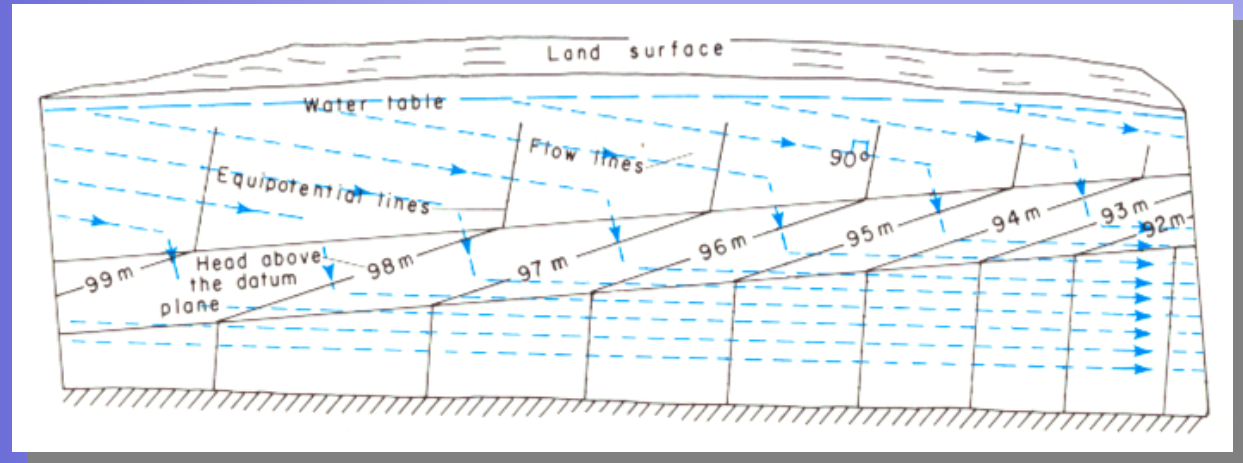
Cross Section

Flow in Stratified Systems

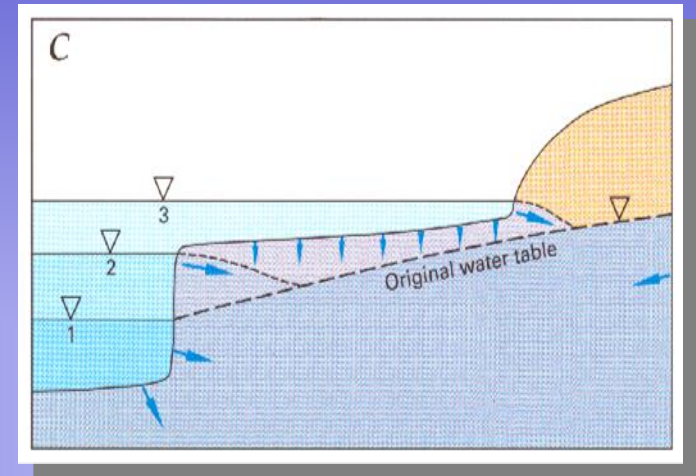
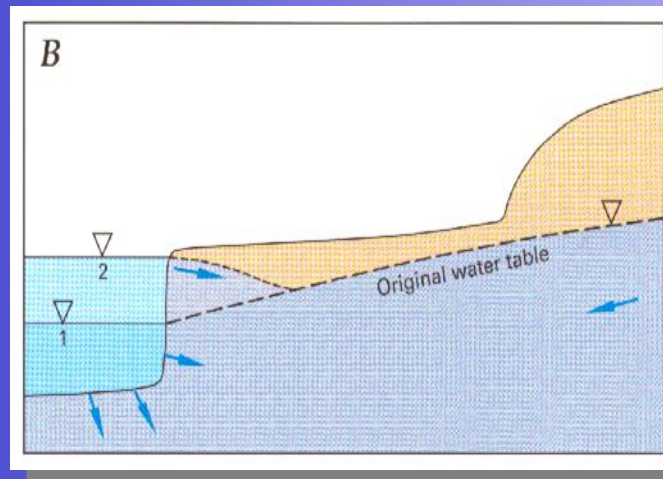
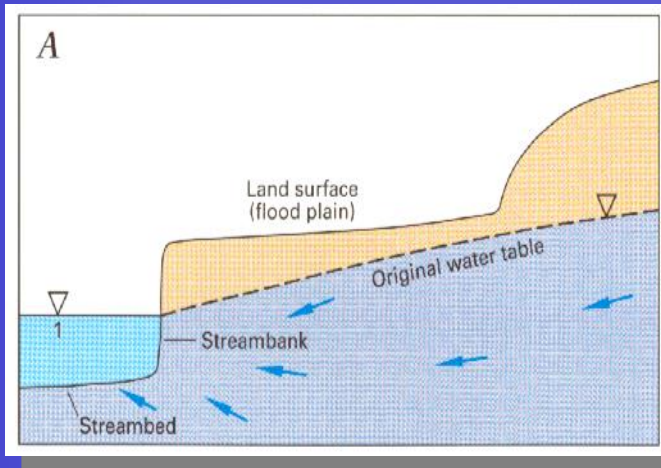


Flow
Lines

Equipotentials

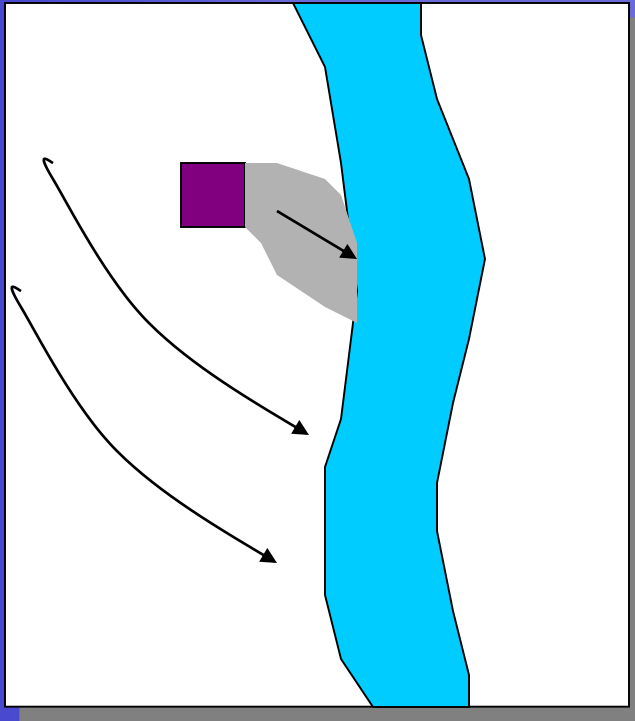


Effects of Changing Water Levels on Flow Direction

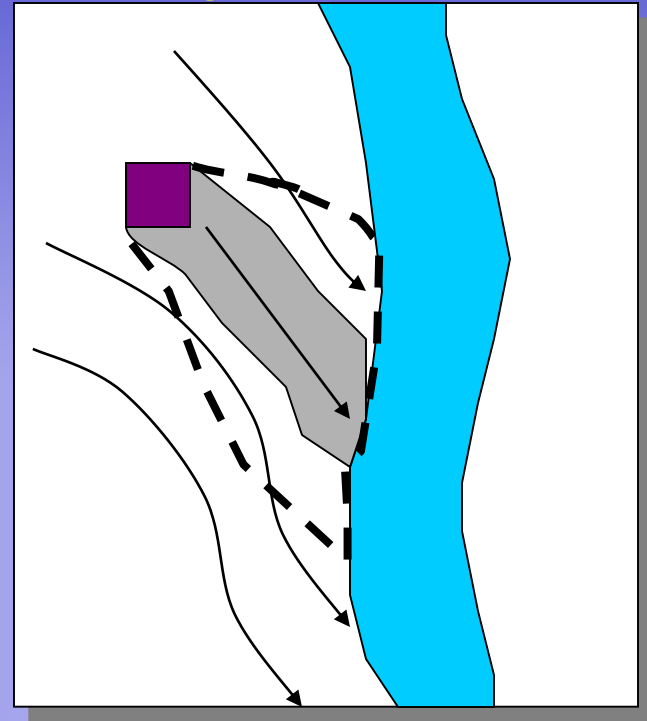


Seasonal Effects on Flow Direction

Low Precipitation



High Precipitation



Contamination can spread over wider areas