

Hydrology

The scientific study of water is called hydrology. Hydrology is the study of occurrence, distribution, movement and properties of the waters of the earth and their relationship with the environment within each phase of the hydrologic cycle.

Hydrologists apply scientific knowledge to solve water related problems, problems of quantity, quality and availability.

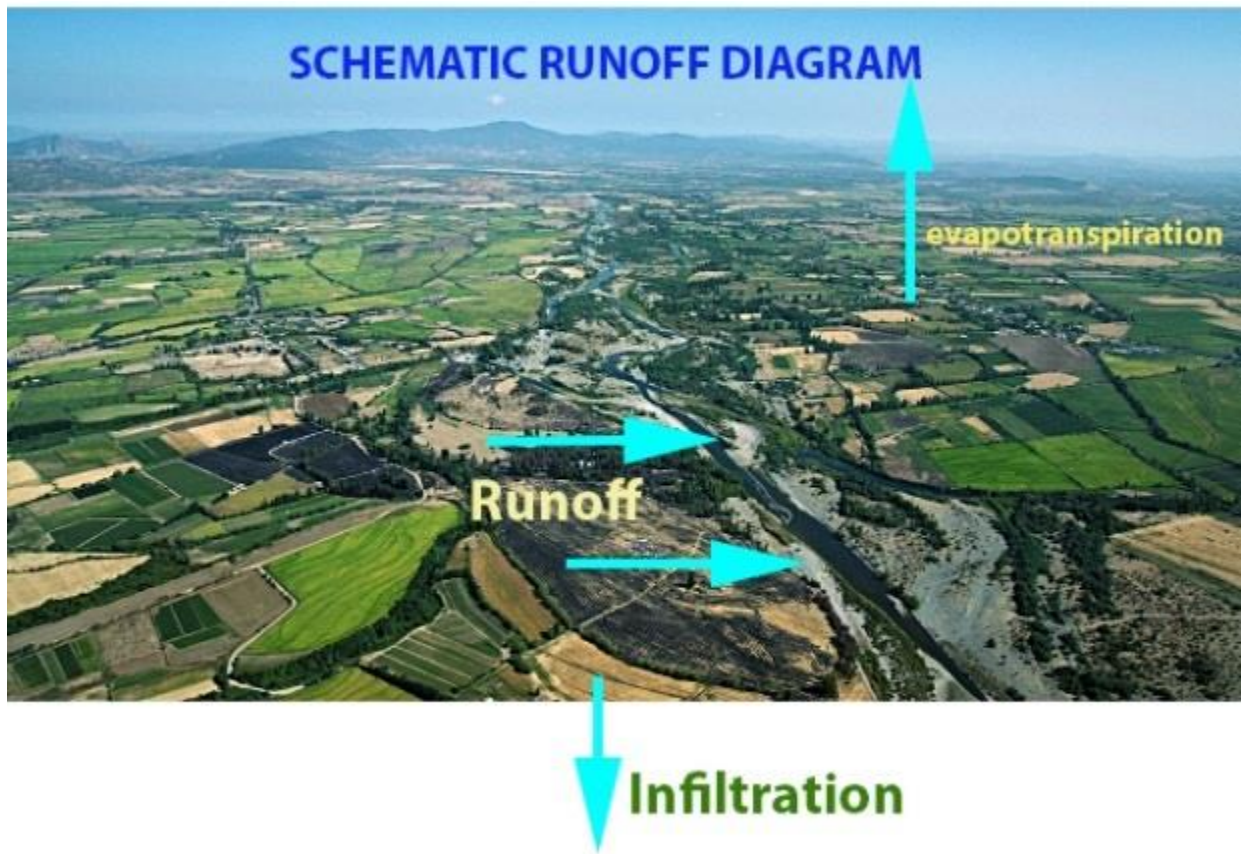


Roughly, a hydrologist has expertise in the following :

- **Precipitation** - Measuring precipitation (rainfall, snow etc.) through gauges.



- **Runoff** - Determining the amount of rainwater reaching the river in a watershed.



- **Hydrographs** - A hydrograph shows how the river runoff responds to a period of rain.



It is used for designing storage on the river and development of flood forecasting and warning systems based on rainfall, among other things.

- **Stream Gauging** - Estimating the volume of water flowing in a river



- Floods-Estimation and Control



Flood Estimation

Estimation of the flood likely to occur from the most severe combination of the rainfall and watershed conditions.

- Siltation and Sedimentation in river channels and reservoirs



Some of the sub-disciplines of Hydrology are:-

Sub-discipline	Explanation
Potamology	Study of Rivers
Limnology	Study of inland waters - (both freshwater and saline), rivers, streams, wetlands, groundwater - as ecological systems interacting with their drainage basins and the atmosphere
Cryology	The study of snow and ice
Oceanography	Oceanography is the study of the ocean. It includes study of marine life and ecosystems, to currents and to the movement of sediments and seafloor geology.
Hydrometeorology	It is the study of the properties of precipitation (rainfall, moisture, evaporation of water from the surface. It may be noted that Meteorology is the scientific study of the atmosphere that focuses on weather forecasting and understanding atmospheric phenomena.