

HYDROLOGY

ET 1001

Assignment NO: 07

Assignment name: answer the question that given.

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(01) Describe how ground water recharge can be affected by hydrological cycle.

Ground water can be found underground in the cracks and spaces in the soil, sand and rock. Water that soaks or percolated into the soil called ground water recharge. That water moves down through the soil as ground water and stored in the aquifer below. Ground water recharge depends on several factors such as infiltration capacity, climate factors etc. it means ground water recharge is affected by hydrological cycle. The spatial and temporal distribution of the rainfall mainly controls the natural ground water recharge and most of infiltrated water is absorbed by the unsaturated zone before reaching the aquifers. And this water absorbs by the trees and transpiration and evaporation occurs from the surface.

Ground water recharge is high when the water table is close to the land surface. Less groundwater recharge leads to a drop in the groundwater table, which can have a negative impact on vegetation. Climate change is also affect because it causes to the precipitation pattern changes. Changes in precipitation, evapotranspiration, and runoff are affect recharge. If the rainfall intensity is high it may lead to more runoff and less recharge. As well as change in precipitation and carbon dioxide concentration may cause to the carbonate rocks dissolution and, hence, formation and development of caustic around water aquifers. This also affect to the ground water recharge. Water doesn't stop in the aquifers; they are moving slowly through the space and crack. Eventually, after years, the ground water comes to a discharge area where it enters a lake or stream and became surface water. Then, the water will once again evaporated and begin the cycle again.