AOGS 2005


# Assessment of fresh groundwater recharge for the piedmont catchment areas: some practical aspects

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Natural conditions of the investigated territory, purpose and a scale of carried out works, and possibilities of the chosen method determine the choice of method for groundwater recharge assessing. A great number of factors such as soil content, vegetation cover, porosity, transmissivity of soil layer and its moisture influence greatly on infiltration recharge. As a result infiltration process is very complicated and can be described and moreover assessed only approximately.
Usually the following assumptions are used for assessing infiltration recharge:
- natural groundwater recharge is a result of distribution between evapotranspiration and runoff;
- groundwater recharge is a one-dimensional water flow through aeration zone till groundwater level;
- due to deep groundwater occurrence it doesn't influence on shallow groundwater recharge.
In mountainous regions and piedmont alluvial fans deep erosion ruggedness, dense river network and great surface gradients may significantly influence groundwater flow. Moreover increase in precipitation can enhance infiltration and thus groundwater recharge and flow.
In the paper some approaches for assessing groundwater recharge in the piedmont catchment areas are presented.