

Hydrochemical Characterization of the Lower Dupi Tila Aquifer of Dhaka, Bangladesh.

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The major source of water supply in Dhaka city is groundwater. To meet the increasing demand the numbers of the deep tube wells expanded dramatically. Recently Dhaka Water Supply and Sewerage Authority (DWASA) is installing more wells in lower Dupi Tila aquifer to meet the demand. DWASA has undertaken a program for abstraction of more groundwater from the aquifer at greater depth beneath the city without detailed study on the hydrogeology, water quantity and hydrochemistry. The study is aimed to understand the hydrochemistry of the lower Dupi Tila aquifer. Specific Electrical Conductance (SEC) of the groundwater are low (253-336 $\mu\text{s}/\text{cm}$) and does not show any significant spatial variability. The concentration of major ions varies over narrow range which indicates almost uniform groundwater chemistry. Hydrochemical facies analysis shows that water of the lower Dupi Tila aquifer is dominantly Ca/Mg-HCO₃ type.